

C1.2: R26/971-4


**FEDERAL ADVISORY COUNCIL**

ON  
**REGIONAL  
ECONOMIC  
DEVELOPMENT**

**NINTH MEETING-DECEMBER 21, 1971**



**WASHINGTON, D.C.**



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# **FEDERAL ADVISORY COUNCIL**

ON

# **REGIONAL ECONOMIC DEVELOPMENT**

**NINTH MEETING—DECEMBER 21, 1971**

**Maurice H. Stans**  
**Secretary of Commerce and Chairman**  
**Federal Advisory Council**

**Robert E. Ruddy**  
**Special Assistant to the Secretary and**  
**Executive Secretary**  
**Federal Advisory Council**

**U.S. Department of Commerce**

**WASHINGTON, D.C.**





# Table of Contents

	Page
Introduction .....	v
Federal Advisory Council on Regional Economic Development	
Members of the Council .....	vii
Participants at Meeting .....	ix
Agenda .....	xi
Remarks by Robert E. Ruddy, Special Assistant to the Secretary for Regional Economic Coordination .....	1
Remarks by Under Secretary of Commerce James T. Lynn .....	3
Development of Four Corners Regional Commission Plan .....	5
Introductory Remarks .....	5
Federal Cochairman Stanley Womer	
Analysis .....	8
Dr. Merrill Bateman	
General Discussion by Executive Agency Participants	
Environmental Protection Agency .....	13
Department of the Interior .....	22
Department of Transportation .....	25
Office of Economic Opportunity .....	27
Department of Labor .....	28
Department of Health, Education and Welfare .....	30
Department of Housing and Urban Development .....	31
Department of Agriculture .....	35
Department of the Army .....	35
Department of Commerce .....	36

# TABLE OF CONTENTS—Con.

## Appendices

Page

### Appendix A—Written Statements of Executive Agencies

Appalachian Regional Commission .....	42
Department of Agriculture .....	44
Department of the Army .....	48
Department of Health, Education and Welfare .....	50
Department of Housing and Urban Development .....	51
Department of the Interior .....	55
Department of Labor .....	61
Department of Transportation .....	63
Environmental Protection Agency .....	65
Office of Economic Opportunity .....	68
Small Business Administration .....	69

### Appendix B—Written Statements of Commerce Intradepartmental Committee

Office of Regional Economic Coordination .....	76
Office of Business Economics .....	142
Bureau of the Census .....	146
Economic Development Administration .....	147
National Oceanic and Atmospheric Administration .....	151
U. S. Travel Service .....	152
Office of the Assistant Secretary for Science and Technology .....	154

### Appendix C—Written Comments from Interested Groups

Cabinet Committee on Opportunity for the Spanish Speaking .....	158
National Council on Indian Opportunity .....	160
State of Utah, Office of the Governor .....	161

### Appendix D—Executive Order No. 11386, dated December 28, 1967,

Establishing Federal Advisory Council .....	166
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### Appendix E—Outline of Plan Review Process .....

174

## INTRODUCTION

In accordance with the requirements of Executive Order 11386 which created the Federal Advisory Council on Regional Economic Development, the Four Corners Regional Commission presented its five-year development plan for formal review by the Council on December 21, 1971. The Four Corners Region consists of portions of the States of Arizona, Colorado, New Mexico, and Utah.

This was the fourth regional commission to present its development plan to the Council for critical review, the others being Coastal Plains, Ozarks, and Upper Great Lakes Commissions. The development of the plan was a Federal-State effort involving the Commission, the Governors of the four States, and the regional offices of the member agencies of the Federal Advisory Council.

The Council, which is composed of Federal agencies charged with the responsibility of implementing domestic economic programs, among other things, assists the Secretary of Commerce, the designated Chairman, in obtaining a coordinated review within the Federal Government of the development plans and recommendations of the multi-State regional economic development commissions. The six regional organizations in existence today are the Appalachian Regional Commission, established under the provisions of the Appalachian Regional Development Act of 1965 and the Coastal Plains, Four Corners, New England, Ozarks, and Upper Great Lakes Regional Commissions, established under provisions of the Public Works and Economic Development Act of 1965, as amended.

Subsequent to the present review by the Council, the Four Corners Regional Commission will revise its plan to reflect the Council's recommendations preparatory to submitting it to the Secretary of Commerce for his approval and transmittal to the President.

UTAH

COLORADO

ARIZONA

NEW MEXICO

# MEMBERS OF THE FEDERAL ADVISORY COUNCIL ON REGIONAL ECONOMIC DEVELOPMENT

Maurice H. Stans, Chairman and  
Secretary of Commerce

Earl L. Butz  
Secretary of Agriculture

Robert F. Froehlke  
Secretary of the Army

Elliot L. Richardson  
Secretary of Health, Education and Welfare

George Romney  
Secretary of Housing and Urban Development

Rogers C. B. Morton  
Secretary of the Interior

James D. Hodgson  
Secretary of Labor

John A. Volpe  
Secretary of Transportation

Phillip V. Sanchez  
Director, Office of Economic Opportunity

Thomas S. Kleppe  
Administrator, Small Business Administration

Robert E. Ruddy, Executive Secretary  
and Special Assistant to the Secretary  
for Regional Economic Coordination

Donald Whitehead  
Federal Cochairman  
Appalachian Regional Commission

G. Fred Steele, Jr.  
Federal Cochairman  
Coastal Plains Regional Commission

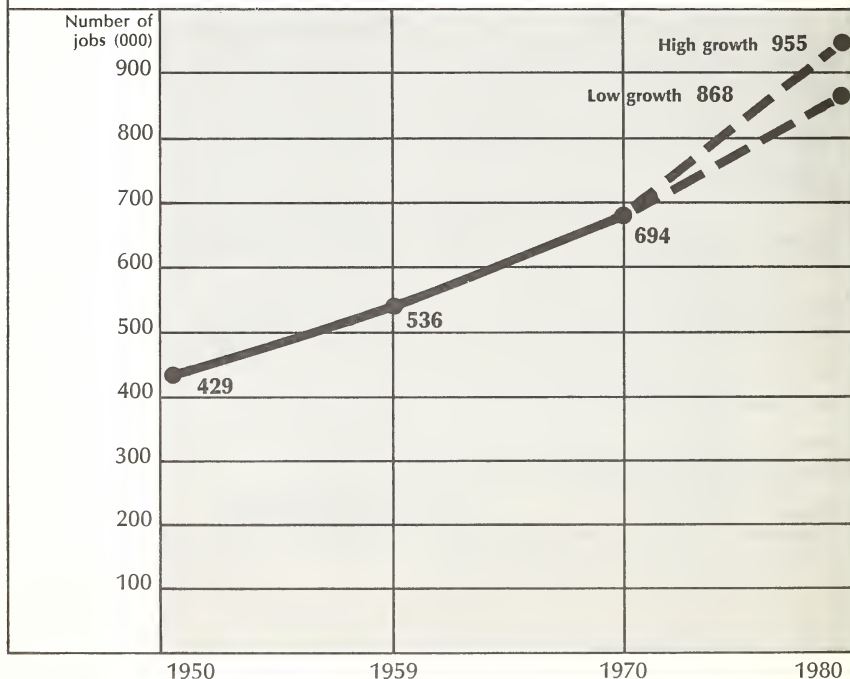
Stanley Womer  
Federal Cochairman  
Four Corners Regional Commission

Chester M. Wiggin, Jr.  
Federal Cochairman  
New England Regional Commission

E. L. Stewart, Jr.  
Federal Cochairman  
Ozarks Regional Commission

Thomas F. Schweigert  
Federal Cochairman  
Upper Great Lakes Regional Commission

# **FOUR CORNERS REGION EMPLOYMENT** **SELECTED YEARS 1950-1970** **FORECASTS 1980**



Average  
Annual  
Growth  
Rates

**2.5%**

**2.4%**

High **3.2%**

Low **2.3%**

# **PARTICIPANTS AT THE MEETING OF THE FEDERAL ADVISORY COUNCIL ON REGIONAL ECONOMIC DEVELOPMENT**

**December 21, 1971**

The meeting was called to order and presided over by Mr. Robert E. Ruddy, Special Assistant to the Secretary for Regional Economic Coordination, and Executive Secretary of the Council. The Honorable James T. Lynn, Under Secretary, Department of Commerce, made the introductory remarks.

G. Fred Steele, Jr.  
Federal Cochairman  
Coastal Plains Regional Commission

Stanley Womer  
Federal Cochairman  
Four Corners Regional Commission

Chester M. Wiggin, Jr.  
Federal Cochairman  
New England Regional Commission

Thomas F. Schweigert  
Federal Cochairman  
Upper Great Lakes Regional Commission

Joseph D. Coffey  
Acting Deputy Under Secretary  
Department of Agriculture

Jack Ford  
Office of Civil Functions  
Department of the Army

Irwin Reisler  
Office, Chief of Engineers  
Department of the Army

Fred Eaton  
Deputy Director  
Office of Regional Economic Coordination  
Department of Commerce

John A. Jennings  
Director, Program Development  
and Evaluation  
Office of Regional Economic Coordination  
Department of Commerce

Daniel Garbern  
Counsel  
Office of Regional Economic Coordination  
Department of Commerce

Robert F. Warren  
Economist  
Economic Development Administration  
Department of Commerce

Charles M. Sylvester  
Assistant to the Director  
Office of Field Management  
Department of Health, Education and Welfare

Howard E. Ball  
Director, Office of State and Local  
Management Assistance  
Department of Housing and Urban  
Development

Kathy Knight  
Office of State and Local Management  
Assistance  
Department of Housing and Urban  
Development

Lois Dean  
Director, Division of Intergovernmental  
Relations  
Department of Housing and Urban  
Development

Reeves F. Nahwooksy  
Special Assistant on Indian Programs and  
Equal Opportunity  
Department of Housing and Urban  
Development

Robert A. Jones  
Chief, Division of Environmental and  
Planning Coordination, BLM  
Department of Interior

Howard Rollman  
Staff Assistant  
Office of Regional Planning  
Department of Interior

Lance Marston  
Director, Office of Regional Planning  
Department of Interior

William Rhyne  
Office of Planning, BIA  
Department of Interior

Richard Keating  
Office of Education, BIA  
Department of Interior

Frank T. Carlson  
Office of Regional Planning  
Department of Interior

Joseph Epstein  
Manpower Administration  
Department of Labor

Philip E. Franklin  
Chief, Economics and Special Projects  
Division  
Department of Transportation

Stanley Greenfield  
Assistant Administrator  
Office of Research and Monitoring  
Environmental Protection Agency

Alan Carlin  
Office of Research and Monitoring  
Environmental Protection Agency

Fred Winkelman  
Division of State and Local Government  
Office of Economic Opportunity

Anthony G. Chase  
Deputy Administrator  
Small Business Administration

Townsend Burden  
Office of the Deputy  
Administrator  
Small Business Administration

Raul Barroso  
Associate Director, ED  
Cabinet Committee on Opportunity for  
the Spanish Speaking

Don McDonald  
Assistant Director  
National Council on Indian Opportunity

Brinley J. Lewis  
Budget Officer  
Appalachian Regional Commission

Merrill Bateman  
Consulting Economist  
Four Corners Regional Commission

Martin Wistesen  
Consulting Economist  
Four Corners Regional Commission

Paul Kolp  
Consulting Economist  
Four Corners Regional Commission

Sidney R. Jeffers  
Special Assistant to the Federal  
Cochairman  
Ozarks Regional Commission



# AGENDA FOR THE NINTH MEETING OF THE FEDERAL ADVISORY COUNCIL ON REGIONAL ECONOMIC DEVELOPMENT

Moderator: Robert E. Ruddy  
Special Assistant to the Secretary for  
Regional Economic Coordination and  
Executive Secretary of the Council

Time: 9:30 a.m., December 21, 1971

Place: Room 6802, Main Commerce Building

Welcome: Honorable James T. Lynn  
Under Secretary

Opening Remarks: Robert E. Ruddy

## Development of Four Corners Regional Commission Plan:

Honorable Stanley Womer, Federal Cochairman  
Four Corners Regional Commission

Dr. Merrill Bateman  
Consulting Economist  
Four Corners Regional Commission

Dr. Paul Kolp  
Consulting Economist  
Four Corners Regional Commission

Mr. Martin Wistesen  
Consulting Economist  
Four Corners Regional Commission

## Individual Agency Comments on the Four Corners Regional Commission Plan:

Department of Transportation  
Department of the Interior  
Office of Economic Opportunity  
Department of Labor  
Department of Health, Education and Welfare  
Department of Housing and Urban Development  
Department of Agriculture  
Small Business Administration  
Environmental Protection Agency  
Department of the Army  
Department of Commerce



Robert E. Ruddy, Special Assistant to the Secretary for Regional Economic Coordination, welcomes participants at the Federal Advisory Council meeting.



James T. Lynn, Under Secretary of Commerce, addresses the Council.

## OPENING REMARKS

MR. RUDDY: Good morning. It is good to have you here today.

I am Bob Ruddy, Special Assistant to the Secretary for Regional Economic Coordination.

As you know, the purpose of this morning's meeting is to review and discuss the Four Corners Regional Commission plan.

Before we turn our attention to the plan, however, I think it might be useful to talk about where the Title V program stands today.

In many respects, it is more of the same. As you know, in August Congress extended the Title V program until June 1973. Subsequently, a number of bills on rural development have been introduced in both the Senate and House, which if enacted, would have a very direct bearing on our program.

In addition, the Administration is hoping to have its Special Rural Development Revenue Sharing proposal acted upon by the Congress.

Now, overriding all of this, of course, is the fact that there are two major bills dealing with general revenue sharing, the Administration Revenue Sharing bill and a new bill introduced by Congressman Wilbur Mills, the Intergovernmental Fiscal Coordination Act of 1971.

It would appear that with both the Mills' and the Administration's bills in the hopper and under consideration, there is a very good likelihood there will be some form of general revenue sharing enacted.

With passage of such a bill, or any special rural development revenue sharing bill, one can envision the Commissions working in harmony with the States to assist them in the investment of these revenues. After all, the development plans which are prepared through Federal-State cooperation, and which contain inputs from the Federal agencies represented here, can be useful to the States as they set their priorities and formulate their strategies for growth and development.

These plans have proved very valuable already to many of the Governors. At a recent Federal-State Conference on the Regional Program, which my office organized, some States' Alternates observed that Governors feel the comprehensive plan enables them to set priorities, and it offers a rationale for the approval or rejection of programs and projects.

With your help, two of these plans—the Upper Great Lakes and the Coastal Plains—have been approved by the Secretary of Commerce and sent to the President.

The Ozarks plan has been reviewed by this Council and subsequently revised to reflect your views.

We hope that before the first of this year it, too, will be sent by the Secretary to the President.

Today we take up the Four Corners plan and in the near future we hope to receive the plan from the New England Regional Commission.

As you can see, there can be little doubt that the service performed by this Council is important and unique, and I want to thank you for being here to help us in this effort.

As a special way of showing my thanks to you, we are going to change our format today. As some of you may remember, at the last meeting I suggested that these meetings were, perhaps, overly long and a little boring.

So this time rather than have you read your written statements, we have asked our Federal Cochairman to respond in his presentation to the written comments which you have already sent to him.

Then if you are not satisfied with his response, we can renew the debate on an issue by issue basis.

Before we get to that, however, I would like to introduce the Under Secretary of the Department of Commerce, Jim Lynn. We are running a little bit late, and all of you who are with Government agencies know how busy an Under Secretary can be.

Jim is pinch-hitting for the Secretary, and I believe he has a few words to say.

Jim.

## REMARKS BY THE HONORABLE JAMES T. LYNN, UNDER SECRETARY OF THE DEPARTMENT OF COMMERCE

MR. LYNN: Thanks, Bob.

The few written notes I had on this you pretty much pre-empted with your earlier remarks.

So maybe I will throw them away.

Let me emphasize just a couple of points, though, if I might.

One is that these plans are useful. They are useful no matter what way we come out with regard to the proper structure in Government for economic development.

They are important in two ways: One, in the affirmative way of helping people think through what the opportunities are and what the pitfalls are along the road in these particular regions of the country.

As a bureaucrat now of some three years' experience, I would also say that they are very important from a negative side. That is, whether or not anything were ever used, with one of these plans you can get a situation where somebody can pick them up later and question and evaluate the thrust of a plan proposed two or so years ago.

So having launched into the planning process, it seems to me absolutely essential that it be done right.

The second point I would like to make is that from time to time I have gone through the written comments we have received from members of this group on the other two plans that have been approved and have also observed indirectly through the minutes of the meetings—or I should say notes of the meetings—and from having sat in on some of your meetings, the impact you people have on the development of these plans.

It is a very, very good example of coordination of Government effort. When you look around this room and note all the diverse viewpoints represented, you can see the makings of a good fight unless people really cooperate with each other. You really do cooperate with each other, and I thank you for it.

The quality of the work is excellent. It shows that real thought goes into your comments and your observations. It makes our Federal Cochairman sweat a little, but that is good, too. As Under Secretary, I sweat all the time and it is kind of nice to know that I'm not the only one catching it. Keep it up. We welcome your comments.

By way of example, let me give one little hint with respect to that. The conflicts that are possible between maximum economic development and the environmental side of the house are enormous.

I happen to be a very firm believer that the two goals are not at all incompatible when both are done properly.

EPA has some comments on this plan. I just had a chance before we came in here to read some of them, just glanced through them, and it occurred to me that a number of them were very, very much worthwhile exploring in depth.

You can't take a region of the United States that is known for its beauty, known for its tourist attractions and the like, and start talking about industrial parks and development without raising the environmental issues.

But I am inclined to think that with the right kind of cooperation between us and EPA, Interior, and others who have concerns on the environmental side, we will come to solutions as to what ought to be stated in this plan, what kind of caveats should be put into it that will be satisfactory to everybody.

We don't want to keep you here. The holidays are at hand. Most of you have not finished all of your shopping for your families. I know I haven't. I haven't even begun.

So let's try to keep the meeting down to a dull roar by way of time.

Thanks for coming.

MR. RUDDY: Thank you, Jim.

I am now going to turn the meeting over to the Federal Cochairman from the Four Corners Region, Stan Womer, and Stan, you might want to introduce your staff before you go into your presentation.

In addition, I am going to skip one step which is to go around the table and have everyone introduce himself.

I would suggest this: The first time you respond from the floor, please identify yourself. This helps our reporter get the names right, and we have it right in the transcript.

So with that, I will turn it over to Stan Womer.

# DEVELOPMENT OF THE FOUR CORNERS REGIONAL COMMISSION PLAN

## Introductory Remarks

MR. WOMER: Thank you, Bob. I would like to thank all of you for coming to this meeting just a week before Christmas.

I am happy to be here. I have been looking forward to this day for a long time now.

Before we get into the meat of the matter, I would like to introduce my staff.

First, Dr. Merrill Bateman, who is the Director of the Center for Business and Economic Research at BYU in Provo, Utah; Martin Wistesen, his Deputy; and also Dr. Paul Kolp, who is Consulting Economist for the Commission and has worked diligently, as I will explain later, on the development of the plan.

Also here is Norris Ellertson, who is my Special Assistant; and with him is Tom Wilson, also a Special Assistant.

In the back of the room, the people you can't get along without, Kay Fronk and Isolda Mayes.

The formation of the plan started back in 1969 when the Governors of the four States, Arizona, New Mexico, Colorado, and Utah, set their goals and priorities for accomplishment.

Shortly thereafter, six sectoral studies were agreed upon. These were region-wide studies of the needs, requirements, and then recommendations for action in vocational education, transportation, and industrial development, which included manufacturing, tourism and recreation, mining and agriculture.

In the planning, selection of the contractor during this monitoring, and in the study review stage, the Commission was assisted by six advisory committees organized and recruited for just this purpose. The membership ranged from 19 people for education to 34 for agriculture.

The membership consisted of all the Federal agencies at the regional level and the informed individuals from the private sector.

For instance, the transportation committee consisted of the regional directors or their assistants from the Federal Highway Administration, EDA, the FAA, the Bureau of Land Management, the National Park Service, BIA, and the Manpower Administration.

Charlie Schumate, who is the chief highway engineer for the State of Colorado, served as overall chairman while the other highway engineers chaired the meetings when the meetings were held in their own States.



At this point, I pressed my own staff into the research business, after these sectoral studies were under way, taking them off their other duties and assignments.

First, we identified every major industrial and mining operation in the region. Then we went to see these people, whether their headquarters were in New York, Denver, Phoenix, or San Francisco—companies such as Phelps Dodge, Kennecott, Kaiser, Occidental, Newmont, McCulloch Corporation, El Paso Gas, and all of the power companies, Ramada Inns, and so on.

These people were really great giving us their plans for the next 5 and 10 years. These expansion plans were given to us in confidence, and hence they are not published in the report, but the forward plans that we obtained from them are cranked into our estimates.

All of these studies composed the base on which we began to build the plan.

The next step was to enlist the Alternates to the Governors in each of the four States to supply the State and local data and priority projects that had little chance of being funded during the next five years.

The Alternates found these pieces of information at the local level, in the cities, counties, school districts, and Indian reservations. All these local entities had their input.

We want to thank the State agencies such as the employment security, departments of education, planning and development agencies, highway, aeronautics, agriculture and so on from all four of the States. They have been most helpful, most cooperative.

Because our scheduled study on agriculture is not yet complete, we will need to give further treatment to this sector of our economy in the four States.

The actual construction of the plan took place at the Center for Business and Economic Research at BYU, Brigham Young University, in Provo, Utah, under the direction of Dr. Merrill Bateman.

A team of about fifteen people worked on the plan very diligently all summer long. Dr. Paul Kolp, whom you met a few minutes ago, left his home here in Bethesda and went out to Provo and spent 2-1/2 to 3 months working with Dr. Bateman and Mr. Wistensen in assisting the team. I devoted many weeks of my time out there also.

I think probably my greatest contribution was cajoling individuals within the States to supply little scraps of information and data that were sorely needed at that point, that juncture in the compilation of the plan.

I want to point out that this is a living document. We need to expand the plan. It will undergo change. We need to refine our findings and recommendations at the sub-regional level, to focus on the problem of the minorities as well as other less advanced people.

I don't question at this point the statements that have been made by some people who have read the plan that we are underestimating the cost of training 95 percent of the unemployed Indians and Spanish-Americans and placing them in jobs.

After all, the Federal Government has been trying to do this for a hundred years for the Indians, and we are not there yet, but I believe that we can take a fresh look at the problem, find some innovative programs and accomplish our goals.

But it may take longer and cost more than we estimate today.

Because of the peculiar organizational structure of the Commissions and the fact that we happen to have the right person on our staff at the right time, just last week U.S. Industries, Inc., decided to expand their production of ladies' jeans in the Four Corners Commission area in northern New Mexico, but the key person in these negotiations was Arthur Ortiz of



my staff, stationed in Albuquerque. His many years in South America as a plant manager for the Quaker Oats Company and his experience as a personnel director for the State of New Mexico fitted him ideally for these negotiations. The Commission has in fact loaned Mr. Ortiz to the Company during the setting up period when personnel selection is in process.

Now, I would like to devote a few minutes to another area of the plan which needs bolstering.

In Chapter II, we consider the environmental and ecological aspects within the region. We would like to have given this greater consideration at this juncture, but it is quite difficult to find the true answers and strip them of emotionalism.

While the Commission will continue as it has to file environmental impact statements for specific projects that are funded, we realize that the issue of the environmental quality is too important to sustain this approach over the entire program period.

Therefore, the Commission and the Department of Commerce have jointly funded a \$100,000 demonstration project in the State of Arizona. This study will examine the trade-offs between economic growth and environmental quality measured in terms of economic opportunity costs.

The evaluation of environmental quality will be attempted through a number of qualifiable measures on ecology, pollution, esthetics and so on.

An impact model is being designed to project economic, demographic, and environmental conditions at one-year intervals over a ten-year period.

The environmental burdens of particular industries will be revised in terms of environmental quality measures and the economic growth programs for Arizona will be evaluated using an environmental impact matrix.

This matrix will provide the State with guidelines for accepting or rejecting program goals.

Work on this project should be completed in October 1972, and because the remaining three States are sufficiently similar in climate, terrain, and population, the Commission expects that the model and criteria developed for Arizona will be utilized by Colorado, New Mexico, and Utah, in insuring that the great natural beauty of the region is preserved in the course of proposed economic growth.

The plan states that the agricultural sector study is not yet complete. We regret this void in the document, but we will prepare an addendum for agriculture just as soon as we can.

Much of the same can be said for outdoor recreation since the state BOR plans are not completed. They are now in the process of culmination.

Last Friday we met with the Regional Manpower Administration personnel from Dallas, Denver, and San Francisco—from the administrative regions covered by the Four Corners Commission.

This meeting resulted in a substantial improvement in our section on vocational education and manpower training.

This new addition is now being written and will be incorporated in the final draft of the plan.

On November 22, the Regional Federal Advisory Council gave approval to the plan. This was a very productive meeting as well.

On November 12, the Commission—the Governors from the four States—accepted and approved the plan as the planning document for the Commission.

This was an important step as the approval committed the States to their share of the total cost of implementation. Needless to say, as Federal Cochairman, I cast an affirmative vote on this particular issue as well, but I do not have the power to commit the funds for implementation as do the Governors.

To accomplish the implementation, we will need the wholehearted assistance of many of the Federal Government departments which you represent. Some of this movement is beginning to take place.

Over the past few weeks, we have held several meetings with the Department of Interior. Interior is big in our region.

The Bureau of Land Management, Park Service, and Indian Lands administered by BIA account for 40 percent of the total land area of our region. We are happy with Interior's interest. Perhaps Mr. Marston will elaborate on this point a little later.

We are ready and willing to work with any of your agencies to assist in getting the plan implemented.

I would like to add that in early October the Alternates were given copies of the plan to distribute to the State agencies, Employment Security, planning, the economists in the universities, and so on. Then, during the first week in November, we met with those people in each of the States—first Salt Lake City, Denver, Santa Fe, and Phoenix.

The comments and criticisms which we received at that point were very much like the ones you submitted in your letters to us.

Beginning the second week of November, on the basis of what we had learned from the States, we started rewriting and now we are awaiting the end of this day to complete that rewriting task.

We have responded to suggestions. We have changed Chapters II, IV, and V already, and we will make further alterations in the plan within the next few weeks.

Now, I would like to call on Dr. Merrill Bateman, who will spell out some of the particulars of these revisions which are underway at the present time.

Merrill.

## Analysis

DR. BATEMAN: It is always good after one has finished a document to sit back and look at it, and to realize from a fresh viewpoint, almost, some of the needs that are inherent in it, some of the things that one thought might appear that don't, given the pressures we were under to produce the document.

It didn't take us very long in terms of sitting back and seeing what some of the changes must be.

I would like to talk about some of those, and some of the things we have learned as a result of yours and others' comments.

First of all, it was clear that the methodology we employed did not come through clearly. Almost from the first page it seemed that an econometric model was flagged as being the primary way in which the document had been put together, the primary way in

which the estimate had been derived, and yet that considerably overemphasizes the role that those equations played in developing those estimates.

So, I would like to tell you briefly the methodology we employed and the way in which we intend to convey that.

There was a total framework we tried to use. One was the population cohort survival model that was used to estimate the natural increase in population between 1970 and 1980, so that we would have some ideas as to the demographic forces that were at play.

We had been warned, and we knew that the birth rates were much higher in the Four Corners region, and particularly in certain pocket areas, than they were in most other areas of the Nation.

This presented a particular challenge and problem to us, and we knew that we needed to understand a way in which those population increases would play in terms of any potential migration and in terms of the need for jobs.

So, it was essential from the beginning that we develop a way of projecting population.

Given the demographic analysis, we then looked from an economic point of view as to what the potential jobs would be in the area by 1980, and really there were approximately three different ways in which we tried to approach that particular problem.

The first was gathering some data, looking at the historical trends, putting those together in terms of that econometric model, and trying to understand some of the relationships that did exist.

The paucity of data made it rather difficult to do this in a way in which one could have a great deal of confidence. At the same time, we learned a lot by trying to force ourselves to use a framework that made us try to understand the interplay of the various economic forces.

From that we then suggested to Mr. Womer that with the help of our staff and his staff we survey the region and particularly the major public agencies, State and Federal, and the large private firms that were operating in the region, or who showed any interest in the region, to see if we could not get some ideas as to what their investment plans were over the next five to ten years.

It was surprising the amount of information we were able to get on a confidential basis and, to some extent, the probabilities from those individuals who supplied the information as to the likelihood of those projects actually occurring.

We were interested in primarily four pieces of information. They gave us their investment plans in terms of dollar amounts, geographic locations. They then indicated to us the timing of those projects, when they would begin, when the construction phase would be ended, and when they expected to be in full operation.

They also provided us with employment data as to the likelihood of the numbers of people who would be employed in the construction phase, on a temporary basis, and then the permanent employees that particular facility would support once it was completed.

Finally, as I mentioned a moment ago, they provided us with some indication from their point of view as to the likelihood of that particular investment taking place.

The econometric analysis gave us some idea as to what a base line projection might be out to 1980, in other words, to have the growth by various sectors.

The survey information we had was then used to modify those projections so that in the end we felt that we had something that was reasonable, that reflected not only past trends,

but any potential structure breaks in those trends.

Following the econometric analysis and the survey, it became apparent to us that it was necessary to break the region into much smaller parts than just even the state portions of the Four Corners region. We knew that we should be particularly interested in those pocket areas of poverty, and so we organized the subregional analysis according to the Indian and Spanish surname areas, and began to ask the questions as to whether these areas differ substantially from the other areas in the region.

Of course, the answer to that analysis was yes, that these really were the pocket areas where need existed.

Finally, in the analysis area, the central analyses that were sponsored by the Four Corners Commission over the last three years played an important role, particularly in terms of suggesting to us some of the design, and also suggesting the particular projects that would be suitable to meet the overall needs of the region.

Really, the purpose of the economic framework was to provide us with some macro numbers as to the magnitude of the problem, to give us some feeling as to what the job gap and the income gap might be by 1980 and what it is today.

Then we used the analyses that came out of the sectoral studies and also there was a lot of input from the local level into those sectoral studies that was reflected.

We used that analysis and those pieces of information to try and develop the program that appears at the end of the book. One of the things, too, that wasn't clear as we sat back was our strategy. The way in which we meet those strategies or fulfill them is really interwoven throughout the book, and particularly in the first two chapters there needs to be a better statement in terms of the overall design, and a statement of the needs of the region in summary terms, and a statement that summarizes the way in which the program will meet those needs.

Strategies in brief were really to identify those particular geographic and cultural areas in a sense—not cultural areas—but where need existed from an economic viewpoint. It was obvious there were areas of low education, areas of very low income, areas where skills were low, and, consequently, the program that was designed was designed basically to meet those needs and in those specific areas where those needs were identified.

It was also apparent that one of the reasons for the low income was almost the total lack of infrastructure. There really was almost no infrastructure in some of those Indian areas.

There was also little infrastructure in terms of providing opportunities for tourism and recreation in some areas.

Now, we understand that there will be environmental hazards in implementing parts of the program, and, consequently, we understand the need to go forward with environmental studies prior to the implementation of particular sections.

At the same time, the roads that were proposed came from a large group of people who were forced in a room, much like this, over a period of a few days, coming from state, from the private sector, from Federal agencies, trying to determine the way in which an infrastructure in that particular area would provide opportunity to enhance the tourism potential without doing serious damage to the environment.

Now, that information is not adequately represented in the document that you have received, but we had available to us a set of documents from this Committee and other committees, that would put ours to shame, that did discuss some of these issues, and we need to spell out more clearly the support for the projects and the effort that has gone behind those project identifications.

Finally, I would like to suggest that the plan is a rolling plan in the sense it has not been designed as an end in itself, that really there is a lot of work to be done.

Mr. Womer, the Federal Cochairman, and others of his staff, recognize the need to continually revise and update and review, and this will be a continuing effort, and in fact money has been set aside in the financial area for this effort.

Again, as one sits back and looks at the document, one recognizes the strengths and the weaknesses, and I suppose we know them better than anyone else.

During the course of the past few weeks and the next few weeks, we intend to rectify as many as we have identified with your help that will serve the needs of the Four Corners Commission.



Stanley Womer, Federal Cochairman of the Four Corners Regional Commission, leads the discussion on the Four Corners Development Plan.



Stan Greenfield, Assistant Administrator of Research and Monitoring, Environmental Protection Agency, discusses the environmental aspects of the Four Corners Plan.



## **GENERAL DISCUSSION BY EXECUTIVE AGENCY PARTICIPANTS**

MR. RUDDY: Thank you, Merrill.

In about five minutes, we are slated for a coffee break which, unfortunately, we cannot have inside this room. But, we are having coffee outside in the hall.

So, at this time, we will go around the room and get some comments from some of the departments and agencies in response to Mr. Womer's statement and Dr. Bateman's statement.

I will deviate from our established procedure, because I understand that Dr. Greenfield from the Environmental Protection Agency is here and must leave shortly. I am afraid if we wait until after the break he might not be able to be here.

So, at this time, Dr. Greenfield, do you have some comments you would like to make in regard to this plan and the statement of Dr. Bateman?

DR. GREENFIELD: Shall I make them up there?

MR. RUDDY: Either way.

### **Remarks by Environmental Protection Agency**

DR. GREENFIELD: These will be very much along the line of our submitted comments with, maybe, one added in.

I am glad to have this opportunity to present the views and recommendations of my agency, the Environmental Protection Agency, on the document we reviewed.

Before presenting our specific comments and recommendations, I want to make two general observations however.

First, I note that since preparing our written comments we have been informed that this development plan originally prepared by the Center for Business and Economic Research was adopted as the official Four Corners Regional Commission plan after it was sent to EPA for review. One of our comments is on this point.

I suggest that when a revised development plan is prepared and adopted (as we assume and hope will be the case as a result of the agency comments) it be under Commission authorship, with appropriate recognition of the Brigham Young University input.

Secondly, and more importantly for this morning, there is nowhere to be found, as you gentlemen have indicated, a draft environmental impact statement. Since the proposals call for approximately \$500 million in Federal expenditures for fiscal '73 through fiscal '76, and \$120 million in state and local funding, and since these significantly affect the quality of the human environment, such an environmental impact statement is clearly required under section 102 (2) (c) of the Environmental Protection Act.

Accordingly, I consider it imperative that such an environmental impact statement be prepared, following established procedures for review, et cetera, et cetera.

I would also like to urge very strongly that in addition to an environmental impact statement for each of the individual projects a concerted effort should be made to provide a total regional or total project or total proposal impact statement. This is such a large program, and there is indeed involved, as your very document emphasizes, a cohesive approach to a single region that I think it would be mandatory that such an impact statement be drafted.

Let me turn now to a summary of several specific economic issues where we consider the document to be inadequate.

Only after these economic issues are addressed properly do we believe it will be possible to examine the total economic environmental analysis which is required before implementing a proposed development plan.

When and if an environmental impact statement is prepared, or such information is included in a draft plan, EPA will be happy to provide specific comments on environmental aspects.

The proposed public investment program for fiscal '73 through '76 is presented as a single, deterministic plan with no options provided and no analysis of probable variations in the distribution of investment among the sectors selected for expenditure.

In short, this is a proposal of public commitment without an analytical evaluation of opportunity costs and varied distributions.

Second, the forecast of growth in the Four Corners region by sector is couched in terms of gross product, earnings and employment with transportation as the biggest single item in the public investment portfolio.

However, the anticipated growth of earnings and employment do not keep pace with gross product growth in the transportation, communication and utility sector.

Third, the emphasis on transportation focuses on opening up mining, timber, oil and gas areas, providing access for tourists and access to industrial parks among Indian and Spanish surname population elements.

Nowhere is there an analysis of relative wages, skills and long-term survival of such a base for economic growth.

An alternative solution suggested in this report to the job and income gap problems of that region is outmigration of labor. If this alternative solution is really presented seriously, then it also seems that an evaluation of transportation expenditures is necessary.

Co-existing policies of net outmigration and increases in roads and airport facilities for the region are not a priori complementary.

Four, income distribution by salary/wage brackets is never really discussed. If leakage by export of earnings occurs, even if earnings and employment rise, there is still a critical need to evaluate how the earnings distribution will change.



Five, Indian and Spanish surname groups are referred to as having low skill levels, and some funds—not estimated in detail and only \$25 million for fiscal '73 through '76—are allocated to these groups; but there is no indication of how the total public investment programs proposed will serve these groups, compared to other elements of the population.

Six, education and health receive only \$112 million, or one-third of the amount going to transportation. No estimate of the results or benefits from this or other levels of funding are provided.

Seven, in general the entire proposal lacks even the semblance of a serious effort to evaluate public investment costs against regional, socio-economic benefits.

The growth areas discussed are among the most potentially deleterious to the environment. It is, therefore, absolutely necessary that viable safeguards be planned and implemented along with other plan features.

In fact, page II-38 openly identifies the fact that one cost, protection against environmental degradation, has not been factored into the analysis.

I appreciate the statements that were made that additional data are available, but it is hard to assess them when they are not provided in the report.

This, despite the fact that the report states on page II-39 that “part of its development program . . . has environmental implications. For example, the highway construction program for the support of mining, tourism and recreation projects will have an impact on the physical environment.” That is a quote from your report.

It is obvious, too, that in the critically water short Southwest, great foresight must be exercised in order to assure in every sense, an adequate supply of water.

While the inclusion of 24 waste treatment facilities is an important facet, an overall program for achieving water quality standards should be made a matter of high priority.

Our conclusions and recommendations then are that the Four Corners Commission has not prepared a true planning document at this stage, at least from the document that we have seen. The report is rather fragmented, giving no unified view of the Southwest area.

Further, the document here considered does not have sufficient and appropriate economic and social information to conclude that the socio-economic benefits from the proposals advanced outweigh the total economic cost.

In addition, no consideration is given to the environmental cost and the related human cost.

On the basis of that we recommend this plan, as proposed, not be implemented.

Instead, it is recommended that the Environmental Protection Agency cooperate with the Four Corners Commission as indicated on page II-39, “in order to protect the natural beauty and other aspects of the region and to keep it habitable.”

In the reevaluation, it is recommended that consideration be given to the possibility of developing subregional plans so that the local problems and recommendations could be more closely tied together, thereby making the resulting revised report a more relevant endeavor.

Thank you.

MR. RUDDY: I will turn it over to Stan and to Merrill to make some response to those comments.

Just generally I will say I am sure that the Four Corners Commission, and certainly the Department of Commerce, will be willing to sit down and discuss any and all of these problems with the Environmental Protection Agency, as Dr. Greenfield suggested.

Stan, do you want to say something?

MR. WOMER: There are a number of responses which I could make to EPA. This plan was produced with the understanding that we had a legal opinion that the environmental impact statements, which we have been making on every one of our projects, were in order. To draw a total, overall environmental impact statement for all of those projects, which will be revised from time to time by the States themselves (because this is a partnership between the four States and the Federal Government), would be a waste of taxpayers funds.

I know that major changes in the list of projects will be coming over the next few months, over the next few years. It would probably cost as much for an overall environmental impact study on the projects that are in this report, than it costs to produce the document as it now stands.

As the report says, in the statement I made earlier, we are perfectly willing and, of course, ready to file the impact statements, the environmental impact statements project by project.

One other difference, of course, is the suggestion that an alternate or alternative to the solution of the problem is outmigration.

This is completely contrary to our mandate from Congress, and it is Congress that makes the ultimate decision, not the Four Corners Commission.

The law itself states that we ought to do what we can to develop the economy to provide a livelihood, a means of livelihood, for the people who now live there, to stop the outmigration, not to encourage it.

In addition to that, some friends here, I think, will back up my statement by saying that no matter what happens, some of the Navajos, Appaches, and the Pueblo Indians who are living within this region are not going to move out of the region no matter what.

Twenty or thirty years ago BIA initiated a program of relocation. The people that BIA picked up and moved from the reservation areas to Los Angeles, Chicago, Dallas, and elsewhere, and provided them with funds to get on their feet, have really created Indian ghettos in the cities. They should have been allowed to remain in the country where they had been living for many thousands of years.

You don't want to forget either that the Spanish-Americans living in the very, very small mountain communities in Northern New Mexico and Southern Colorado have been there for 400 years. They were there before the City of Washington was established and lived under the Spanish flag at that time.

The older ones don't like to move either.

So the suggestion that outmigration is a solution to the problem, number one, is contrary to law and, number two, from my personal knowledge of having lived out there for so many years, conditions make that particular solution impossible in this decade.

I would like to call on Merrill now.

MR. MARSTON: Are you saying you have a legal judgment that the environmental impact statement, the 102 statement, is not required for the overall plan?

MR. WOMER: That's right.

MR. MARSTON: Has this been substantiated by the CDQ and others?

MR. RUDDY: It is a Commerce Department legal ruling that he is relying on.

MR. MARSTON: Has this been done as to any of the preceding plans?

MR. RUDDY: Any of the preceding plans? No, sir.

MR. WOMER: That answers that question, and I would like to ask, Dan, do you agree with me about the Indians out there not moving?

MR. MC DONALD: They are going to move back and forth in both directions. They are as mobile as anyone these days, I guess.

I certainly don't agree that outmigration is a solution. I suppose it was posed only as an alternative that is not acceptable.

DR. GREENFIELD: Mr. Womer, I was saying that was in your report. I wasn't suggesting that as a solution.

MR. WOMER: It has been suggested by other people.

Merrill.

DR. BATEMAN: There are a number of interesting things raised by EPA that I would like to respond to.

One of the things that we did do shortly after finishing this particular document that we knew we had to do was to run that program back through the economic analysis to see what its impact would be, and to run alternatives—alternative distributions through the model in terms of allocations, different allocations, to different sectors. We have been able to evaluate that in terms of its impact on jobs and on income, which is really what we are after, and we find first of all the program we have designed does meet the kind of objective we have set for ourselves from a job point of view.

The interesting thing to me was that EPA talks about putting money into roads not doing what we said it would do, because you can look at the transportation, communications and utilities sector and see from the kinds of investments we are talking about that you don't get the kinds of returns.

The interesting thing to me is they chose the transportation, communications and utilities sector for a government construction project. That is not where it goes at all.

They need to find out where those expenditures are classified.

From the mining, timber, oil, gas, they talk about, we have done no long term survival analysis. Actually the projects themselves came, as I said, from the sector studies.

The problem we had was that we had a very large document. We had to start to ask in terms of summaries of the economy, and summarize the direction this was going and present a plan. What we failed to do was to summarize the other 3,000 pages of sectorial studies we had at our disposal that were suggesting the projects in which there had been some analysis done in terms of both a demand and supply point of view as to the potential of those particular projects from a long term standpoint.

I would like, too, to comment on their suggestion with regard to outmigration of labor. They didn't suggest that as a solution. We had a lot who did.

Why don't we just pay those people to get out of the region?

As Mr. Womer indicated, that is not a mandate of the Commission. The mandate of the Commission is to try to provide jobs for the people who are there. They indicate it was EPA's suggestion though that if one built roads into those areas, those people may well leave.

This seems to me incongruous. One hundred years ago we forced a group of people from the lands that we now occupy. We forced them into a desert, have provided them with no infrastructure, no roads, no means of access to population centers, and now it is suggested that we might have an impact on their desert environment if we put a road out there to them to allow them to live a little more economically, to have a better life.

In fact, if anything, we have understated the cost of helping those people, because we have taken a set of statistics, which is all that we had at our disposal, that referred really to a group of areas that had a fairly well developed infrastructure such as Colorado Springs and Pueblo and Albuquerque and Santa Fe, and the Provo-Warren areas and Flagstaff. We generated analysis from data that was really heavily weighted by those areas, basically because that is where most of the economic activity is.

Then we try to imply from that kind of data what the cost would be of creating jobs out in the desert. It is perfectly clear to us we have understated the cost of performing the task we set out for ourselves.

If anything, the kinds of outmigration that infrastructure might bring about also causes us to understate the problem because the people who will migrate out are the people who do have better levels of education, who have a chance to compete in those population centers on the periphery.

The people we need to help will remain in those poverty areas and, if anything, will bring people in from outside the region to take up the jobs we create.

So, if anything, we have understated the task that is ahead of us.

It was suggested we didn't look at the income distribution. We would like EPA to provide us with the data so we can, because the data does not exist, to our knowledge.

They suggest that we are not putting enough money into education, that more of it should go there as opposed to the roads. We suggest that one of the basic problems is access; and if you give those people access, the kinds of money that we are suggesting for education will take care of the problem, that really an infrastructure in terms of providing accessibility must come first.

Finally, they talked about the great water shortage of the Southwest. I suggest that that does not really adequately represent the situation.

In fact, that seems to me to be a Washington observation basically because there are areas of surplus, and there are areas of shortage in the Four Corners region, and those surplus areas are in Southern Colorado, in Northern New Mexico, and in Utah. There is a shortage area in Northern Arizona, and we have recognized those—not explicitly in the document, I am sorry to say—but in terms of the projects that were suggested, or that came from the grass roots as EPA suggested they should, those projects did take into account the water shortages or surpluses of the area.

For instance, the Central Utah project, the Navajo irrigation project and the Bureau of Reclamation projects in Colorado actually have and will solve the problems that exist in much of the Four Corners area.

Thank you.

DR. KOLP: There was a comment that only \$25 million was spent in Indian and Spanish surname areas. If you look closely, two-thirds of the money allocated is in that area, and not the \$25 million. If you look closely, you will find that two-thirds of the money being spent is in Indian and Spanish surname areas. In addition, we should say that some of these projects came out of specific comprehensive Indian plans.

If we now tell these Indian people you can't have these projects because of environmental impact statements, I think this adds to what Merrill was saying just a few minutes ago.

DR. BATEMAN: We are not afraid to do environmental impact statements, and it was obvious to us at this stage we had to put the package together before we went into that stage. We really needed to find out what kind of package we were talking about, and it is not clear at this point that the package is solidified.

So from our point of view, one can't go out and spend a large amount of money on an environmental impact study of a tentative proposal until one has solidified the dimensions of the particular area.

MR. EPSTEIN: It seems to me on environmental impact there appears to be a kind of polarization. Either we have a total impact statement on the total picture, which is obviously vague and shows nothing with respect to specific projects, or on the other hand, there is an obligation to do it on the specific projects which seem to have a green light.

Can't there be some sort of in between position which would say that we will start with the individual projects, do those with respect to the environmental impact, but then at least look at the industries that are heavily involved in the overall study, and say, on-balance, we think we are doing certain things as far as the environment is concerned, rather than be tied to a plan that may never eventuate, and hence spend a lot of money on engineering and planning, that will never be worthwhile in terms of really meaning something. At the same time, however, the plan does envision the introduction of certain kinds of industry, and for that purpose, it might now be necessary for something more than waiting for individual projects to be costed out environmentally. Perhaps one could do something with the statement as to what is likely to prevail as certain industries do come in.

MR. WOMER: This is exactly what our Arizona study, which is costing the Four Corners Commission, the Department of Commerce, \$100,000, will do. This is the reason for it.

Sid, you have a question?

MR. JEFFERS: I am asking a question because we were involved in the Ozarks with some of the same problems.

I was curious—I don't know—is it required that the Department of Defense file a generalized impact statement on its total program for defense installations in the country?

MR. WOMER: I can't answer that. I don't know.

MR. JEFFERS: The reason I ask that question is that Title V Commissions are presently funded in a range of \$5 to \$7 million each.



Now, these plans that they propose range around \$65 to \$70 million a year and, of course, there is no assurance when that appropriation level will be reached.

This is a plan, and hopefully, if that appropriation level is reached, then the plan can start being implemented.

I don't know what the Department of Defense's total expenditures are within the confines of the Continental United States, but I wonder if EPA has asked for total impact statements on all their projects, or do they get impact statements on each individual project?

DR. GREENFIELD: May I answer that?

The Department of Defense installations are tied together so they impact on a single region together, and I certainly would ask them for a single impact statement.

We are talking about a total region that has been presented in this plan as a cohesive plan, where you are not talking about individual projects necessarily. You are talking about development of a total region, and development of a total region means a lot more than air and water pollution and specific projects you attempt to put in there.

It also means you cause a redistribution of population; you cause a whole development of an area; you cause by the very impact of man being there and producing this large development a change in the environmental characteristics of that area.

Whether or not that is detrimental is not what we are arguing. The fact is, it is a total approach, and it should really demand a total environmental impact statement.

MR. MARSTON: I would like to respond to that, Doctor Greenfield.

We already have a major ongoing program in the region and \$2.5 billion spent by the Bureau of Reclamation and BIA and the Bureau of Land Management. All have projects, and all are required to file environmental impact statements, which they are doing.

I wonder if it is within the plans of the Environmental Protection Agency, or some one else, to pull these together and begin to use that as perhaps the foundation—you can take that existing data because there is a considerable amount—as kind of a building stone, rather than trying to undertake a major, massive, comprehensive environmental impact statement.

DR. GREENFIELD: Because the law states that those who are about to spend the money to accomplish the project should do that; and if the data are available, I think it would be great to gather it all together.

MR. MARSTON: Even that is a huge undertaking. I know it is a major informational problem in itself to try and collect all of this information, and right now we are kind of at the cutting edge or the beginning stages of filing these reports, and I wonder is it really realistic to think in terms of total comprehensive environmental plans.

DR. GREENFIELD: When is it realistic to start looking at some of these things? A lot of what we are doing—maybe all of what we are doing—is not reversible.

Down the pipe, if you find out you made a mistake, you don't turn around and change what you are doing.

MR. MARSTON: If we go back to the initial comments about the fact that projects are filing environmental impact statements, it seems to me you do have a reasonable assurance that the environment is being given proper consideration.

All we are talking about in this plan is an additional \$500 million. Admittedly, individual 102 statements will be filed when these programs see the light of day.

DR. GREENFIELD: You are insinuating or inferring that a given budget itself impacts the environment only to what you can set down at the moment that that project is produced.

The fact that there are two projects does not necessarily add up to the simple sum of the two.

MR. MARSTON: Generally speaking, under the 102 process you are required—or obliged—to look at something bigger than simply the functional use of that project.

DR. GREENFIELD: I haven't seen one of them yet. That is why in most cases—

MR. MARSTON: So you are suggesting that that is still in the formative stages? There isn't any national policy?

DR. GREENFIELD: National policy is set almost by precedent. We are talking, or we are arguing. My statement here was to urge you to do this. There is no law that says that you have got to do it, but I urge it.

MR. RUDDY: I think perhaps at this time we should take a break for coffee. We can continue this discussion afterwards.

I would say this, Dr. Greenfield, that to reiterate, we are more than willing as far as the Department of Commerce is concerned, and I am sure the Four Corners Commission and Mr. Womer would back me on that, to sit down with your people and discuss these problems.

I think Mr. Epstein may have provided us with the genesis of some sort of organization other than the situation where you look at the individual projects.

DR. GREENFIELD: Dr. Carlin from my office will be here the rest of today.

MR. RUDDY: I think we will take a short break for coffee.

*(Short recess.)*

MR. RUDDY: As was mentioned earlier in the morning, one of the Departments that has a tremendous impact on the Four Corners region because of various programs is the Department of Interior.

We were gratified earlier this year when representatives of the Department of Interior approached us with the idea of implementing the plan of the Four Corners region.

I would like to call on Lance Marston from the Department of Interior to respond, not only to Mr. Womer and Dr. Bateman, but also to perhaps tell us some of the things that they have in mind for the Four Corners region as far as the Department of Interior is concerned.

## Remarks by Department of the Interior

MR. MARSTON: Thank you, Bob.

In the interest of time, it would be easier if I stayed right here or however you want to do it.

My name is Lance Marston and I am Director of the Office of Regional Planning at the Department of Interior.

It is a new office and I am kind of a new guy in town. I have only been there a little more than a month now.

I would like to introduce several gentlemen who have come along with me: Howard Rollman of my staff; Bill Rhyne from the Bureau of Indian Affairs and Bob Jones from the Bureau of Land Management.

One of the first things that I recognized when I came to the Department of Interior and this Office of Regional Planning was the tremendous number of plans that were around, particularly natural resource plans. In the Department we have functional plans and comprehensive plans and regional plans and reconnaissance plans and all sorts of plans.

One of the things that I observed in talking to various people in the Department was the fact that many of these plans are somewhat limited in their perspective. They don't look at all of the economic factors. They don't look at all of the human factors. They don't even look at all of the natural resource implications.

When you think of all the money and all the time that goes into these various plans, you are overwhelmed and oftentimes frustrated, particularly, when you try to evaluate or to get others to evaluate them.

Perhaps because of my several years in the Space Agency in a systems management and programming field, I have a bias; and when I look at a plan, I try and see whether it lends itself to programming and budgeting. I do that, I suppose, because it seems to me that that tells you an awful lot, whether it can be an action plan, whether it can be a strategy, if you will, for the future, and whether, indeed, it can in the case of this Four Corners plan provide a road map for future development and future growth, taking into account all of the factors—environment, the human equations, which are the most important, and other things.

Obviously this plan does not have all that it should have. I think all of us here recognize that. I am sure that we are all loaded for bear today and we have all kinds of critical comments.

I know that within the Department of Interior when we sent out the request for a response, we got back a ream of very critical comments. We have environmental problems that have been touched on today; we have recreational problems. Some of our bureaus don't feel there has been enough consideration given to the recreational aspects of this thing, the tourism, and there are various other problems.

But there is one thing that stands out on this particular plan that I think is noteworthy, and I think we should take into account.

No. 1, we are dealing with a very highly specialized and a very professional group of people who, I think, have done an admirable job under some pretty difficult circumstances.



No. 2, the plan appears to be comprehensive. It takes into account, as Stan has already pointed out, through new inputs they are getting, some of the things that so far have not been present or we haven't had an opportunity to review.

In our judgment it appears to come to grips with the human problems and the economic problems, the very big problems, I might add, that exist in the Four Corners region.

But most importantly, as I noted earlier, the plan has or lends itself to a programming and budgeting approach. In other words, it does have some of the ingredients I think are important when we look to an action plan.

We didn't reach these conclusions easily. As Bob pointed out and as Stan has pointed out, we were concerned about the plan when we first saw it and evaluated it—I might add on a very superficial basis. So we asked Stan and Paul and Norris if they would put together a presentation to show how this particular plan could be used more effectively as an action plan, considering the programming elements, the long-term elements, the short-range goals, other things, and they did it and they made a presentation to our assistant line secretaries who felt this plan did indeed have the ingredients that would make it a viable and useful action plan.

Now, I have some thoughts and suggestions at this point that I would like to touch on. I know we are pressed for time. I think within the Department of Interior—as a matter of fact, we have approval for this—our best approach to this whole thing would be and will be to organize a steering group made up of those key bureaus that have a vital interest in this region.

We have already talked to the chief programming and planning people, and they have agreed to serve in this capacity. I know some agencies already have this kind of arrangement, and we would welcome an opportunity at the conclusion of this program or at some later date, if you could contact us and give us some insight, so we don't try to re-invent the wheel and maybe make some of the mistakes you encountered in this kind of intra-agency coordinating forum.

The second thing we have done, which I think is fairly noteworthy, is to instruct our field personnel that this plan is more than just another plan. We do, indeed, plan to make it an action plan for the future rejuvenation of this area, and the response has been gratifying because frequently people in the field tend to think their efforts are for naught. They never see any results of the plan, and when they come back to Washington, they find much of the hard work ends up in someone's bookcase.

One particular point, I think, needs to be made at this time—and I would hope we could do something about it—and that is in the plan itself, it seems to me, we need to better identify the short-term, intermediate and long-term goals. I think that is something Stan and his staff could do, and I think it would provide or would act as a forcing function in terms of getting the necessary approval through the Office of Management and Budget and other places.

I think it would act as a forcing function in terms of the kinds of decisions that need to be made to quickly get on top of this thing.

Another suggestion I would like to make—it is only a suggestion—is that because of the intense interest we all seem to have in this kind of thing, we set up some kind of coordinating mechanism made up of people in this group who could meet, perhaps, semiannually to follow up and make sure some of the things we talk about here are indeed done. We should have some kind of better coordinating mechanism to make sure your people are kept informed of what the Bureau of Indian Affairs is planning for the Indians and the Bureau of Land Management is planning with respect to the use and development of

public lands in the area, which are such a significant resource, representing about 40 percent of the land area in that region.

It is only a suggestion and I would hope that sometime during this morning we would have an opportunity to discuss this a little more.

Going specifically now to the discussion we had earlier on the environmental impact statements, the 102's, it seems to me we have a very fundamental problem here, not specifically in this region, but throughout the country. As many of you may know, there have been various land reform initiatives offered by this Administration such as the National Land Use Policy Act, the Coastal Zone Management Act, the Power Plant Siting Act, and it seems to me that these are the vehicles through which you can get to the point where you can make the kind of judgments that need to be made in terms of the development and the environmental protection of these areas.

Specifically, if you look at the National Land Use Policy Act, you find it requires the States, and properly so, to identify those regions or those areas that have special ecological significance. You find that States are required to identify those areas that have or that would lend themselves to development, and you find those areas where the States have to set aside areas around major facilities like highway systems or airports, things of this sort.

So it seems to me once we get that kind of thing under way we can do the very thing that EPA talks about.

You should also know that the Department of Interior right now is proposing a major program which would use space technology through the ERTS system, the Earth Resources Technology Satellite System, which would borrow from the technology and knowledge we are gaining now from the Environmental Resources Observation System.

That will provide us with the knowledge that is so desperately needed at this point to do some of the things that EPA quite justifiably feels and all of us feel need to be done in terms of land use planning. It will provide us with the basic data and knowledge about the land carrying capacity of the area, the environmental capacity of the area, and will give us a lot of needed data to do the very kind of planning, balanced environmental and development planning, we need.

Thank you.

MR. WOMER: Thank you, Mr. Marston.

I have just one little comment to make.

You did mention the fact that some of your people had indicated that we were weak on tourism and recreation. I also indicated in my earlier statements that we are awaiting some information from the State BOR studies to bolster that section.

I didn't, however, say anything about the fact that we have, since our meetings the first week in November with the States, where this was very definitely pointed out, gathered all of the available material from the States up to date just as far as we can go, every scrap of information regarding tourism, recreation and retirement, which is also an important part of that area in the Four Corners.

What we have available, what we are able to get at the grass roots level, will be included in the final draft. That still will be somewhat short and we recognize it, and it is something we are just going to have to work at over a longer period of time to accumulate the necessary data.

We have information now from all four States and a new section will be prepared on that subject.

MR. MARSTON: That will incorporate the State recreation plans?

MR. WOMER: As far as they have been completed, all four.

Do we have it?

MR. WISTESEN: We don't have good information from Utah, but we have it for the other three States.

MR. WOMER: Did you hear that? We are lacking information from Utah. We will make an effort to get that.

Of course, I am delighted with your response. I want to assure you that we will continue to work with your people just as closely as we can and with the agencies of all of the departments of the Government toward the implementation of the plan.

I think we have a meeting set up for sometime next month. I would like to do that with all the departments, and I do appreciate your suggestion that we set up a coordinating mechanism. I am sure that Bob Ruddy and the Commission will be happy to do all we can to put that sort of mechanism together.

Thanks.

MR. RUDDY: Once again, I would like to add my thanks to the Department of Interior and Lance Marston for this really significant breakthrough, because when you develop these plans, all the model planning in the world will never get you anything unless you do get into the plans and try to implement them. I would hope that the other departments represented here would give some thought to this action taken by the Department of Interior and really make that Title V planning program go.

Along that line, I agree there should be further meetings. There are two functions that the Title V program performs. One, of course, is a catalyst to start programs in the regions, and we work with practically every one of the departments and agencies here during demonstration projects or in supplemental grants.

The other is continuing our planning process. This is a great thing the planners fall back on. Whenever they get stuck, they say, as you know, planning is a continuous process.

We do hope we will be able to meet continually on these various plans and any others that may come down the road.

There is one more to come after this one, but I can assure you that I and my office have no intention of planning ourselves out of a job.

I believe I skipped over someone and I am sorry.

Mr. Franklin, I believe Transportation was next.

## **Remarks by Department of Transportation**

MR. FRANKLIN: The Department of Transportation appreciates this opportunity to comment on your plan.

From this review, we are pleased to see that the plan clearly comes to grips with many of the cultural and socio-economic obstacles to the region's development.

The Commission's recognition that the natural resources of the region have not benefited the Indian and Spanish surname persons was a step in the right direction. In this connection, the plan's strategy for closing the job gap between whites and non-whites is excellent.

Also the regional and subregional econometric models for problem solving were impressive.

Although the plan recognizes the ecological impact of mining activities, it should also be mindful of the environmental effects of highway construction.

In addition, because of the sparseness of population and the vast distances, it does appear that commercial bus transportation would not become available for the labor force and perhaps innovations and special support will be needed at some point in the future to meet this need.

The economic planning model has pinpointed investment opportunities in two modes of transportation: highways and aviation. Encouragingly, this investment will be supportive of agriculture, mining, industry, tourism, health, education and manpower objectives.

The Department was pleased to note how each of the 60 highway projects was documented to show improvements in accessibility to the various developmental areas. The time span, the fiscal years of '73 through '76, for completion of the highway projects is reasonable.

The airport section of the plan is in consonance with the recommended development in our national airport plan, and both of the proposed airports would be eligible for Federal matching funds. However, both locations which are not included within the national airport plan would not at this time be eligible for Federal aid.

Also when the Four Corners Airport Plan is submitted to DOT, the Federal Aviation Administration will not be able to assign priority to the entire '74 improvement project. FAA considers each project on its own merit.

In addition, the price tag of \$20 million for these improvements is probably too low in terms of today's construction costs.

In the Federal Railroad Administration's review of the report, that agency felt that if there is to be a revision, the coverage of rail transportation should be expanded. FRA points out there are approximately 9,500 miles of railroad, and 20,000 railroad employees in the four State area, and that in view of the environmental considerations evidenced earlier in the discussion, this would be another reason for giving added consideration to the rail transportation as an alternative.

In conclusion, I want to say that the Commission should be commended for its work on the plan. It should support an excellent presentation to the Congress when the Commission is seeking funding authorization in 1973.

Thank you.

MR. RUDDY: Thank you very much.

Mr. Womer has said he agrees with everything you said, so he doesn't have to respond to it.

MR. WOMER: Thank you.

MR. RUDDY: Next on our list is the Office of Economic Opportunity, Mr. Crutcher,

and I know that in your comments you did raise some points about the minorities, the Spanish surname people and the Indians. I would like to add at this time, at the suggestion of Federal Cochairman Stan Womer, we have representatives here from the National Council on Indian Opportunity, and also from the Cabinet Committee on Opportunity for the Spanish Speaking. So, any time you gentlemen would like to respond to any of the points that are made, please feel free.

At this time, does OEO have any comments they would like to make or reiterate, or do they believe the issues have been covered by Mr. Womer?

## Remarks by Office of Economic Opportunity

MR. WINKLEMAN: First, let me say that I am not John Crutcher. Were I John Crutcher, I would be winging my way to Mexico City on my honeymoon, because I just would have gotten married on Sunday—

(Laughter.)

MR. WINKLEMAN: —after 50 years of bachelorhood.

(Laughter.)

MR. WINKLEMAN: I would like to add that Mr. Crutcher failed to file an environmental impact statement—

(Laughter.)

MR. WINKLEMAN: —although I am sure his environment is affected.

Just one further comment, and then I will defer to the rushing time.

That is, we are aware, of course, that the funds contributed by OEO to improve conditions in that region are not included in this book, but they do total something on the order of \$6 and a half million in fiscal year 1970. We would simply plead for inclusion of this in the plan so that the things that we are trying to do in the opportunity area, primarily for Indian and Spanish surname people, can have some relationship to the development that comes about through the Four Corners Regional Commission plan.

That is all I would like to say.

MR. RUDDY: Thank you very much, sir.

MR. WOMER: He didn't tell us what his name is.

MR. WINKLEMAN: It is Fred Winkleman.

MR. RUDDY: The Department of Labor, Mr. Epstein.

## Remarks by Department of Labor

MR. EPSTEIN: Well, our comments are included in the letter, but I would like to reiterate a few of them.

First off, I think the Four Corners Commission should be complimented on coming to grips with how one does a kind of a planning process that is trying to quantify and do the kind of thing Mr. Marston said, have the capability of budgeting and planning.

It is particularly difficult in an area where you don't have data, but everybody has to put this thing together. I think even if the data are wrong, the fact that you have got a paper trail which leads you back to your assumptions, can make an actual contribution on this.

This is the first regional commission which has adopted this tactic in such a full blown operation. I may be wrong, but I don't think it has been done to the same extent before.

Having said that, I would like to say a few other things, that seem to me worth some comment.

One is that the Commission seems to think the Federal presence is a depressing one because of the fact that aerospace and defense industries seem to be turning down, and that creates a problem, but they also recognize that the Federal presence was necessary to subsidize, and you can't have it both ways.

You recognize the need for the presence, the need to have planning made more accurate or more articulate, so you can deal with the situation when aerospace or defense goes into a tailspin, a plan that will lead you to have some corrective measures anticipated; but I think it is wrong on the one hand to say it is good, and on the other hand, it is bad.

From my point of view, and from the Department's, what I have to say now has to do with the previous comment from OEO, that our programs were not included, it seems to me, in the rackup of Federal contributions to the area.

I see only some \$42 million for vocational education programs, and almost nothing as being recognizable as Department of Labor programs.

So what I suggest here is perhaps that in some way or another our program was missed in the rackup of money. It is there as far as programs, and I plead only the fact that it be recognized in the document as being consistent with your planning purposes.

Again, we are pleased that the disadvantaged groups of the area are getting the kind of recognition that, I think, is due them, and the Commission will take proper cognizance of their problems and so on.

It goes without saying our own regional office in connection with its own programs will be glad to cooperate, and the State affiliated agencies, I am sure, will be happy to give you the benefit of their budgeting and planning for the areas that are concerned. If you run into any problems, just let us know.

MR. RUDDY: Thank you very much.

MR. EPSTEIN: You did say earlier in the quick rackup you were planning to do a review of the manpower training development part of the report.

I would like to know more about the details and have a crack at it before it gets finalized.



MR. WOMER: In my opening remarks I mentioned the fact that we met last Friday with the Manpower Administration people from Dallas, Denver, and San Francisco, and in any event, we had inadvertently hidden the Labor figures under vocational education on the page opposite Chapter VI, page 46, some \$16 million, which was attributed to HEW, and some more. That particular page is going to be completely revised with Manpower Administration programs pulled out and identified.

On page IV-34, there is a table which outlines the Federal outlays by agencies for 1968, '69 and '70, which does give an indication of the expenditures of each one of the major departments with the exception of OEO, and that is hidden under other agencies. Perhaps with your help we can pull that out and show it separately.

MR. EPSTEIN: I think Labor is missing there, too.

MR. WOMER: No, sir. Labor is right there in the middle.

MR. EPSTEIN: I am looking at page VI-107.

MR. WOMER: Look at IV-34.

This is history. It shows what you have spent in the region.

MR. EPSTEIN: I think I was looking at VI-107. At that point I thought it was—that is where you say it is comprehended under vocational education?

MR. WOMER: Yes, and that will be pulled out and there will be approximately \$20 million.

DR. KOLP: We are talking manpower in the area of \$20 million for the program.

MR. WOMER: From the Department of Labor programs.

MR. EPSTEIN: The table VI-18 will also be corrected?

DR. KOLP: We will have a program in Manpower Administration of approximately \$20 million to complement the other.

MR. WOMER: This is a living document. We have just killed some pages, and have given birth to others.

I am sure that the good and bad sections will be corrected.

I have no further comments, unless there are further questions on this score.

Thank you very much.

MR. RUDDY: I neglected to add, Mr. Epstein, there has been tremendous cooperation from the Manpower people on the regional level on the Four Corners plan.

In fact, at this point I would like to say that Stan Womer's Four Corners Commission probably has the most difficult time of all in coordinating with the Federal Government, because they fall within three different Federal administrative regions.

Next on the agenda is the Department of Health, Education and Welfare. I know in their comments they raised the point, as many did, there seems to be some question here on priorities, say, for example, health, which is one of the things they did mention.

Mr. Sylvester, are you satisfied with the answers that you have received so far?

## Remarks by Department of Health, Education and Welfare

MR. SYLVESTER: Well, I don't really think we will put it that way. We did note that the Four Corners Regional plan seems to have less impact on HEW programs than other plans we had reviewed, and we note this in passing.

We understand there may be reasons for it, and we understand the question of priorities is one in which you are in the best position to judge.

I noted Dr. Bateman's statement as to why certain priorities were decided upon.

Still, we feel there are considerations which should compel you to lead more in the direction of the fact that the only HEW program that seems to be involved is the manpower training programs. This makes us wonder whether or not some consideration should be given to broader programs in the area of education and in the area of health, other than building the sewer systems.

We think this is part of the socio-economic structure, which is important in your general planning, and we expect this is something you will consider.

The other thing which did bother us a little bit—and we are not critical of the Commission, we are critical of the situation really—was that there did not seem to be what we consider adequate dialogue between our regional planning officer and the Commission, and we are concerned for a number of reasons.

We think it is important in our own planning that there be input from the economic development commissions. Otherwise, we are ourselves certainly not in a position to plan for a regional area, and we would like to see more of this.

In the HEW structure, most of the planning in a geographic area derives from the geographic area, not from the central office. It is particularly important, therefore, that the regional commissions depend upon the local representatives of the Department in their planning process and, of course, as you just stated, in the Four Corners you have particularly difficult problems, because you have three administrative heads to deal with.

Aside from that, we felt that the plan was a very, very complete one. We think it represents a very fine basis for an economic development plan in the Four Corners area, and certainly our regional staff in these three regions involved should be delighted to cooperate with you in the future.

MR. RUDDY: Thank you very much, sir.

On the last point, I could not agree more. There should certainly be cooperation and coordination in the field with the regional offices.

Stan, do you want to add anything?

MR. WOMER: I have got the staff here running through the list of our advisory committees. Paul Strong with HEW in Denver was a member of the Educational Advisory Committee, and I know he attended a number of those meetings, and Clinton Hess from Denver also was on Recreation, Tourism and Retirement, and I am sure that we will find some more.



Paul Strong is also on Manpower.

MR. SYLVESTER: I think the problem is that there should be contact at the level that deals particularly with the program.

I am suggesting really that additional contact perhaps should be made at the regional director's planning level, and that is the place, I think, where it has been missing.

I understand there has been contact at the program levels in the development of specific things, but I am suggesting in the overall program you talk to the planners.

MR. WOMER: The regional director in Denver attended our meeting on the 21st of November. He is new, and I can't recall his name at the moment.

MR. SYLVESTER: Garfield.

MR. WOMER: I had a nice chat with him, and he was interested, but we had an educational job to do with him during the course of the meeting.

I would also like to add there is in the plan \$50 million not yet identified as to specific projects, and some of this will be earmarked for health purposes.

I think HUD can make the same criticism, because we have not emphasized housing, and that, too, needs to be bolstered; but at this point, our plans just are not far enough along.

The plan does mention the self-help housing which we are pushing just as hard as we can, although we have not gotten final okay on that particular demonstration project.

So there are provisions for additional health programs in the planning, and they will be implemented, I am sure, and of course, we want to work with you.

Thank you.

MR. RUDDY: Next would be Housing and Urban Development.

Mr. Ball.

## Remarks by Housing and Urban Development

MR. BALL: I don't really care whether this goes on the record or not. You have got our official comments on paper.

There are some thoughts that occurred to me as I have been sitting here listening to the discussion which I would like to toss out, aimed at the Commission people themselves.

I feel very strongly, picking up on some of Mr. Marston's thoughts from Interior, that we desperately need some good inter-government agency cooperation in the areas of software on the ground in the region to pursue the kinds of concerns that the Commission has and the agencies have. I think this is the wrong place to be having these kinds of discussions. I feel out of joint, and I am not that close to what is going on.

The place to get this kind of thing, the budget dollars, and almost everything, has to be out there in the four states and regions. This is especially true if HUD is going to make a contribution. We are deeply decentralized and the money is held by the Area Director.

There is nobody in Washington that is going to allocate money to this region. We touch on this in our comments.

The inter-governmental machinery is pretty lousy, not just there. It may be weaker here than in other parts of the country, and I don't want to go into the reasons for that; but there is going to have to be a much larger software component in the plan, it seems to me, if, in fact, you want to see it happen.

I don't see the kind of linkages with the Feds, the Indians, with tribal status and so on and so forth, and I think somebody has got to work on that.

You need work out in the country, but especially you need it with the regional and local government, and I can go on and on.

If you have follow-on sessions, I think it would be extraordinarily important to include tribal representatives. Let me tell you why.

There has been discussion about whether or not Indians would move as a result of putting in roads. I think that is kind of a nonsensical way to approach it.

The reasons Indians stay on reservations is that they are captives of a resource base that was left over, and they are also captives of a service delivery system. This is the only way they gain access to welfare.

Let's talk about this. This is one of the problems I have with the report.

You are not anticipating in the report a major current of probable change in your society. This is a highly conventional analysis, and that is not to put it down, but when you have a momentum type analysis, the curve keeps going in the direction they have gone.

It indicates they will stay on the reservations even with a presumed increase income level which could get up to \$1,000 per person, which is only what you are talking about in your program for the three-year period, and you may be surprised at the response, at least among the young Indians.

I am not going to make a prediction. I will predict it will be quite different than the past trends have shown, because they are captive persons with the resource. With this plan, they are no longer going to be the captives of the system, dependent on BIA, and I don't find in the projective, futuristic thinking in the report some of the elements of surprise that may overtake that region.

Another thing, with half a billion dollars under Title VII, that region could buy ten new towns at \$50 million each. There is no reference at all to doing something that represents a real departure, breaking from the momentum concept of what is going to happen in that region. Yet we are getting applications from new towns, public agencies, Governors, Mayors, and so on, counties, and so forth, and perhaps even an Indian tribe.

I am not a lawyer so I do not know. You could come in under Title VII and do something quite innovative, utilizing the sums of money well within the scale you are talking about in this report.

This leads me to my last point. It seems to me a lot of what we are talking about in Four Corners, as well as most of the Title V areas, is, in fact, extra market intervening by the Feds, utilization of 1040 and revenue flows. We are not borrowing money to do this. We are talking about flow money to do this.

Is it a free form of capital? I don't see any real differentiation in your report, and I haven't seen any in others either that state boldly what the subsidy objective is. What do we get back for intervening in terms of rural-urban benefits?

I haven't seen the agriculture report, and I am not trying to anticipate what it is going to say, but I can guess what it is going to say. I can guess it is going to say that we need more wood and fiber. That is going to be a funny statement.

So, these are some of the things I would like to see injected in the studies, and this is a personal view. It is one of the reasons I enjoy coming to these meetings because you let me talk like this.

Lois Dean is here. She comes from a planning background. She may have some additional thoughts off the record.

MR. RUDDY: I didn't call on you first this time. I tried it last time. I put in the woman's liberation bit and I hope I managed to elevate you, and you are back with us now.

MR. BALL: Lois did all the work.

MISS DEAN: Howard, I think, summed up my major concern, and I am speaking for Reeves Nahwooksy, who is an Indian on our staff. He did make some inputs to your report, and he checked, and evidently the Indian tribes were not all directly involved in the preparation of this plan. And, yet, they have a special status in the country.

I just want to reinforce what Mr. Ball said here. I would hope in subsequent meetings that the Indians would be personally represented, not by their Federal agency, BIA, but personally represented.

Thank you.

MR. RHYNE: I would like to agree with the preceding statement. I am William Rhyne with the Bureau of Indian Affairs.

I would like to state that the comments which have just been made concerning Indian participation are certainly in line with the thinking of the Bureau of Indian Affairs.

We were afraid in reviewing this document, which only came to us in the Office of Planning this week, that perhaps the Indian tribal leaders had not participated in its formulation. This policy of having the Indian tribal leaders in at the beginning is something which permeates the Bureau's thinking now, and we do want to emphasize that it must be so and the Bureau of Indian Affairs wants to work with you people on it.

This means not only Indian participation in the formulation, but in such things as picking out the sector emphasis and establishing your series of projects, and these projects, many of them, fall on Indian reservations. They certainly should be representative of the priority thinking of the tribal leaders and of the people themselves.

It should concern them. It should be what they want, because we want to do what they want. It must come from the grass roots and from the grass roots in our case means from the Indian tribes.

Just another thought, this week there is being held a series of meetings with Secretary Morton and the Assistant Secretary for Land Management. Out of these meetings will come some policy decisions and new directions for the balance of fiscal year 1972 and 1973 with respect to BIA programming, and certainly this plan and things of this nature are helpful.

We will be studying it and working on it with you; and, as Mr. Marston said, it will certainly be helpful to have at the Washington level some close association in the future with you people, but regionally at the grass roots level there certainly should be tribal representation and tribal interest from your standpoint.

Thank you.

MR. WOMER: I am glad you brought the subject up. All of the projects which are listed in that plan originated on the reservation. It came from there. They were in the form of requests for assistance of one kind or another.

I suppose it is because of my background—for the last year, or a little better than that, I suppose, the Commission has, and prior to that time, too, worked very closely with all of the reservations within the region, most particularly with the changed administration with the Navajo, with Peter McDonald, Wilson Skeet.

We have funded feasibility studies for the Navajo irrigation project at the request of the tribe. Wilson Skeet has been the guy with whom we have been working primarily as well as with Carl Todacheeny.

On Sunday, I met with Clarence Hamilton and Logan Koupee and Abbott Sekawapta on one of their problems—a major project to improve the water resources on the Hopi reservation.

We just approved a series of small projects for irrigation, about six or seven, on the Hopi.

I have a date in January to work with Dr. Ned Hatathli, President of the Navajo, on some of these problems. So, I want to assure you and all the other people in this room that the Indian people have had an input into this plan, and I think will even have a greater input.

I don't know whether you are aware of the fact that I was, I think, successful in an unusual way in getting a commitment of \$50,000 from Wilson Skeet to help pay the freight on 175 miles of irrigation pipe which one of my staff members had found on the West Coast.

Interior had to put up the rest of the money—\$150,000. The value of this pipe is \$1,300,000. I was in constant contact with the tribe during this negotiation which extended over about eight weeks.

So we are not neglecting our personal contacts, and they do have their inputs.

MR. MARSTON: We are elated. We just have a problem in trying to reprogram it with the tight budget.

MR. WOMER: Characteristically, and I am sure the folks here from Interior will live with me, but I was in the middle on that particular problem because we had placed a freeze order on that pipe which was sitting in a great big field near Stockton, California, and we tried for some eight weeks to find a couple hundred thousand just for freight.

The freeze ended on the ninth of this month, and between 4 and 5 o'clock on the eighth, we got the money. I was sweating that one out. We worked with the Indians.

MR. RUDDY: The next man is a face I was happy to see here today on the one hand and unhappy on the other, because I happened to be working with him on a task force. I was hoping, if I had to be here, that he might be picking up some of that slack, but he is not. He is here also.

Dr. Joe Coffey, have you got anything to say from Agriculture?

## Remarks by Department of Agriculture

DR. COFFEY: I assume our full report will be in the record, and we had hoped our man from New Mexico could be present, Mr. Ken Williams. He is fogged in. He called in late yesterday. He could not make it, and I regret he wasn't able to make it, because the reason we wanted him here was that we are decentralized, too, Howard, and so we want our contact there at that level to attend these meetings if we can get him here.

The other point I wanted to make, in addition to that, is that we understand the agriculture plan is not yet completed, and we look forward to its completion.

MR. RUDDY: Thank you.

The Department of the Army, Mr. Ford.

## Remarks by Department of the Army

MR. FORD: My name is Ford. I am representing the Secretary of the Army with regard to the Civil Works Program of the Corps of Engineers.

We have filed a brief comment, and I will just briefly summarize those comments.

First, we would like to say we recognize planning is a continuing process and an interim process and that this plan as presented is primarily a framework for broad strategies, and should prove very useful in more specific planning in the future.

We would like to emphasize that the water resources of the region will be an important element in the economic and environmental development, and that at this point in time it seems possible that the water resources within the region may not be sufficient to realize the full development potential of the plan.

We believe it may be necessary to look towards the possibility of water import plans. There are several such plans currently under consideration which would provide water from water-rich regions to the water-short regions.

The Bureau of Reclamation of the Department of Interior, I think, is conducting a study for the western United States called the West-wide Study and if that program is ultimately implemented, it could have a significant impact on planning for the Four Corners region.

Perhaps you already have done so, but we would suggest your Regional Commission establish whatever coordinating mechanism is necessary to assure that the needs of the region are given appropriate consideration in that and any other studies for the western States.

MR. RUDDY: Thank you, Mr. Ford.

The last speaker of this morning's session will be from the Department of Commerce. On each of these plans before we get to this stage, all of the divisions in the Department of Commerce which are concerned with the plan meet and discuss it.

We try to wrap it up and we have one person from my staff present, and I will ask Mr. Jennings to synthesize our thoughts on it.

## Remarks by Department of Commerce

MR. JENNINGS: Yes, I think we had a very good day yesterday in the intra-department review group and we were pleased to find that the wide range of constructive criticisms were accepted by Dr. Bateman and Mr. Womer in their consideration of a final draft of the plan.

I might, as Bob suggested, summarize the key areas of weakness which were perceived by the Commerce evaluators.

We might say that these are ones which are more the result of under-exposition in the sense that they are implicit to the plan but require more explicit enunciation.

I think one of the key suggestions that developed was that a good, tight, coherent, executive summary be prepared to accompany the plan in which the Commission strategies are more explicitly stated.

We would like to see in such a summary a better development of how the delivery system is going to function with respect to the development of industry in the minority areas which occupy a rather large portion of the geography of the Four Corners region. What we would like to see is an indication of the priorities that are to be followed as the infrastructure investments are orchestrated. How vocational education projects will stage with industrial park construction, etc.

There was also comment by Department of Commerce evaluators along the lines developed by HUD this morning. It seemed to them that in considering the development of an infrastructure, the Commission should take into account the advantages of new settlements as a technique, particularly on the reservation and in other of the sparsely populated portions of the region.

Finally, because 70 percent of the funds called for in the recommendations is allocated to areas substantially populated by minority residents, we concluded that consideration should be given to separate subregional plans which focus on the strategy of investments for the Indian and Spanish-surname residents.

I think that is it. Thank you.

MR. WIGGIN: May I be heard for 30 seconds?

MR. RUDDY: I was going to call on you, Chet, because you are the next victim.

MR. WIGGIN: I am Wiggin from the New England Commission.

Like the proverbial tortoise, we are plodding along in New England in an effort to get a plan that will make some sense to you gentlemen and ourselves.

Bob, I first want to say that we solicit and welcome any data, any information, any assistance, any help that you can give us. We, indeed, have written, I think, every member of the FAC asking for that help, and any input you care to give us will be most useful and most welcome, and I am just delighted to hear the sort of comments we have heard today from Mr. Marston, Mr. Ball, and Mr. Sylvester.

When Lance started, I was going to point out to Stan that he reflects the sort of reasonable and constructive attitudes we have in New England, he being a New Englander, and not only that he is from New Hampshire, which makes it even more appealing, but then the other gentleman jumped in which pleased me, but tended to blunt the effect of that observation.



Seriously, though, I am somewhat interested in the hard line taken by EPA, because this will have some material impact on the New England plan.

In New England, anything that is done because of the congestion that we enjoy up there, of necessity will have environmental impact, and it troubles me some because it seems to me that we foresee economic growth, obviously.

We raise one thing and raise it well and that is a crop of babies every year. As a consequence, with the population growth, the burgeoning of our economy, it seems to me we are going to have to do more and more, and I would hope we can do these physical things without undue impact on the environment.

But we have to make some kind of rational accommodation. With all due respect to the representative from EPA, if there is still one here, we have had excellent relations with EPA in Boston.

As a matter of fact, we are engaged, I think, in three joint funding ventures with them right now. We have no problem there, but when I was soliciting help for the plan, the staff came to me the other day and said the planner at EPA refuses to give us any information.

I then talked to the regional administrator, and we straightened the poor planner out. They have now assigned liaison with us, but I am now beginning to wonder if that is just liaison in a token sense.

If EPA wants to seriously get into the act at the ground floor, I would say New England offers a great opportunity to do just this, and we would welcome any help if they care to give us any, not two months from now when I am up here trying to defend myself against the slings and arrows, but right now, and I am tempted to write Mr. Ruckelshaus and suggest just that.

I didn't mean to get off on that pitch necessarily except to say that this has been most productive and constructive for me, Stan. I learn a little every time I sit in on one of these and eventually we are going to have a plan to submit to somebody.

But I just can't tell you how pleased I am to hear the kind of comments we have had from Mr. Sylvester and, incidentally, your people in Boston have been perfectly great with us.

MR. SYLVESTER: I am aware you have very good dialogue.

MR. WIGGIN: I am all for decentralization of government. It is great.

MR. SYLVESTER: Up to a certain point.

MR. WIGGIN: We have had good relations with the Federal Establishment, and again I don't want to burden the time, but I would welcome any input anybody wants to give us as we go along. I think Mr. Ball's suggestion that we ought to have continuing dialogue is a great one and I welcome it.

Thank you Bob, for your time.

MR. RUDDY: I think your comments were well taken, Chet, and certainly I hope all of the departments and agencies represented here will get together on the lower level and work with Mr. Wiggin on his New England plan.

With regard to the Environmental Protection Agency, I am sure we will be having some discussions on this general subject in the next few weeks. I foresee no difficulty in reaching a solution on this matter.

At this time I would like to recognize the other Federal Cochairmen who are here. You have heard from Mr. Wiggin of New England. You have heard from Mr. Womer all morning.

Tom Schweigert of the Upper Great Lakes Regional Commission is here.

Fred Steele from the Coastal Plains Regional Commission is here and Sid Jeffers is representing Bud Stewart from the Ozarks Regional Commission.

I believe that completes this FAC meeting. We will hope to see you again sometime early next year.

In the meantime, I might point out that there are copies of the last FAC meeting and also statements available on this table.

So we will see you when we have a chance to discuss Mr. Wiggin's New England plan.

*(Whereupon, at 12:20 p.m., the meeting was adjourned.)*





Under Secretary James Lynn (second from left) chats with (left to right) Alan Carlin, Office of the Assistant Administrator, EPA; Federal Cochairman Stan Womer; Robert Ruddy, Special Assistant to the Secretary; and Fred Eaton, Deputy Director, Office of Regional Economic Coordination.



A view of Federal Advisory Council participants reviewing the Four Corners Plan.



## **APPENDIX A**

### **WRITTEN STATEMENTS OF EXECUTIVE AGENCIES**

THE APPALACHIAN REGIONAL COMMISSION

1666 CONNECTICUT AVENUE

WASHINGTON, D.C. 20235

December 15, 1971

OFFICE OF  
FEDERAL COCHAIRMAN

Honorable Stanley Womer  
Federal Cochairman  
Four Corners Regional Commission  
Room 1898-C  
U.S. Department of Commerce  
Washington, D.C. 20230

Dear Mr. Womer:

The Four Corners Regional Commission Development Plan is a positive contribution to the ongoing development of techniques in regional economic analysis and program formulation. The Appalachian Regional Commission is particularly interested in the efforts of your Commission for two primary reasons. We are currently developing a 15-year regional program plan and budget, similar in concept to the Four Corners document, which attempts to measure the Region's problems, allow goals to be set, calculate achievement gaps and finally, specify alternative program packages designed to meet the Region's economic and social needs within a given time frame. Secondly, as regional development commissions, we face many of the same difficulties in attempting to stimulate accelerated economic growth and development.

There are, of course, many differences between the approach to development followed by the Four Corners Regional Commission and that followed by our own Commission. However, it is hopefully anticipated that there will be substantial opportunity for a continuous interchange of methodologies and techniques which our respective Commissions have found successful in improving the utility of development planning to policymakers at all levels of government. Several specific comments are contained in the following.

The Four Corners Plan identifies the magnitude of the region's economic problems by projecting population, income and employment to 1980 and then calculating the job and income gaps which would occur by then, given various sets of assumptions. On the basis of the above, a goal of increasing job opportunities is established and, using econometric models for each of the four States and incremental capital-output ratios, a total

Honorable Stanley Womer

December 15, 1971

Page 2

investment need is estimated. The assumption is then made that the fair public share of this investment is 40 percent. What is the basis for this assumption? Further, it is our impression that the capital-output ratios used are based only on private investment data and do not include public investment. If so, it must be assumed that a dollar of public investment is perfectly substitutable for a dollar of private investment in job creation. It is not clear that this is the case and, therefore, this relationship may require further, extensive analysis. A third difficulty arises in the assumption that 60 percent of the needed investment will be forthcoming from private sources: How can we help insure this magnitude of private investment? What is the probability that the Four Corners Region will attract this investment, given the competition from other regions of the United States? Our own planning has also been weak on this latter point.

It has been our experience that the income or job gap techniques of analysis are not entirely satisfactory for allocating all types of program funds within a given region. The location of the greatest need is not always the most effective location for the solution. Public investment funds are severely limited and therefore must be concentrated in those places which offer prospects for success, given certain locational constraints.

Again, the Four Corners Development Plan represents a step forward in the continuous process of improvement in regional economic analysis and program development. We commend you for your efforts and thank you for this opportunity to comment on the Plan.

Sincerely,



Donald W. Whitehead  
Federal Cochairman

*Alternate*



DEPARTMENT OF AGRICULTURE

OFFICE OF ASSISTANT SECRETARY

WASHINGTON, D.C. 20250

December 1, 1971.

Subject: Four Corners Plan

To: Stanley Womer, Federal Co-Chairman  
Four Corners Regional Commission

We appreciate the opportunity to review and comment on the revised draft of the development plan for the Four Corners area. Comments by the Four Corners Region Rural Development Council of the USDA, located in the field and chaired by Ken Williams, SCS State Conservationist of New Mexico, were sent on November 9, 1971. The document was viewed as the general framework or strategy for the development of the region.

Since agriculture and forestry will continue to be a significant component in the region, the Commission can continue to expect the fullest cooperation from the Department. We suggest that a continuing work relationship between the Commission and the Department's Four Corners Region Rural Development Council be maintained. We feel this relationship can be mutually beneficial in achieving the goals contained in the plan.

The strategy set forth in the development plan recommends improvement of physical facilities and parallel investments in human resources. The major demand in physical facilities is for transportation. In the human resources the need is to raise operational skill levels to improve the quality of the labor force. The Commission proposes to concentrate the major sector of the programs and investments in the Indian and Spanish surname communities.

The draft under review indicates that the Commission's plan for agriculture, including forestry and fishing, will not be completed until January 1972. The four State Universities in the Four Corners area are presently preparing the agricultural portion of the development plan with technical assistance from the Commission. The results of their study are to be added to the plan now under review.

The Department will withhold final concurrence with the Four Corners Development Plan until we have the agriculture insertion. Since this is a review of a draft, and the timing is to receive the agriculture

section in January 1972, our lack of approval does not appear to be critical insofar as timing of any final approval of the plan by all Federal agencies.

The development plan itself was prepared by contract with the Center for Business and Economic Research at Brigham Young University. Such an approach may be highly efficient but may lack broad base involvement of persons who might contribute significantly to the development of a regional plan. The preparation of the agriculture plan by four land grant universities will provide opportunity to involve the expertise of USDA and related agencies at all levels.

The recommendations for current spending in agriculture are relatively low-cost projects of a repair and maintenance type. They are related to areas of low agricultural productivity and will be delivered on a nearly individual basis. This is in keeping with the stated objective of concentrating on projects that have special impacts on Indian and Spanish-American areas. The Department shares the stated goal; however, we are concerned that this approach may not necessarily produce a program thrust commensurate with overall goals or needs.

The detailed observations and comments which we have at this time are as follows:

1. The study implies that if we do enough projects in enough areas some of them are bound to succeed. Geographic specificity is lacking. For a region like the Four Corners, it would seem to be more appropriate to have some kind of a long-range network of urban places, jobs, training, and recreation centers that all tied together in some kind of meaningful way. Only in this way can we be assured that each of the individual projects contributes toward some kind of ultimate goal and is meaningful within the context of the long-run objectives.
2. There are many questions that can be asked about the econometric model. One problem is that the equations deal with very large sectors of the economy and therefore provide only a very rough approximation. The equations at best can be assumed to measure the average impact of all the types of industries within a sector. This can result in very misleading analysis. When money has to be spent on a specific type of industry within a sector, the economic impact of that particular type is very important. Within a given sector, there can be a tremendous range of impacts of the sub-sectors within it. Another problem with the equations is that when the authors made their projections they added to their projections a small amount, the difference between the estimated and



the actual 1970 values, which tends to distort their projections. Thus, the model's usefulness in terms of this project is very much in question. Also, there is no case where the results of the econometric model are used to demonstrate the importance or feasibility of a project.

3. Questions can also be raised concerning the study done by Batelle Memorial Institute. One question is that it is not at all clear how the results of their study are used by the Commission in selecting the development investment projects. Second, the methodology itself leaves something to be desired. The results of their analysis simply suggest what types of industry would be consistent with the economic structure and resource situation in the State. Part of economic development is changing the basic economic structure in an area. If the basic structure in the area is in fact changed, then a whole new set of industries becomes feasible. Also, the analysis does not show what kinds of industry should be sought after or encouraged to develop within the area. Of course, a major marketing study would probably have to be done before the question of what industries really should be sought could be answered.
4. This study also recommends that a large sum of money be spent in general purpose education. An additional possibility which was not discussed yet is worthy of consideration, would be to spend education and training money to have an impact within the area by subsidizing industries to give people on-the-job training.
5. As we reviewed the overall plan we had the impression that it is a framework for action and that additional functional plans will need to be developed for the various sections and parts proposed. Water is one of the limiting factors in the entire region. All aspects of the water resources need to be given full consideration. In reading the plan, one gets the impression that it is based on exploiting much of the resources found in the region rather than conserving and using them under a sustained basis. Also, it does not cover the environmental problems of the area, which at present are particularly important with respect to the mining and utilization of coal, and there is very little mention of current problems and prospects relating to the construction of fossil fueled electric power plants in the area.
6. Practically all the economic development projections are locked into present going programs. But just to accelerate on-going programs may not improve the rural economy and provide jobs for

rural residents. Building of the infrastructures may tend to accelerate the concentration of population into the SMSA's which presently are in good economic condition within the Four Corners Region. A well planned disbursal of job opportunities throughout the region must be carefully identified and planned if we are to stay within the framework of the balanced population distribution national objective.

7. Nearly one-fifth of the acreage of the National Forest System, involving all or part of the 25 National Forests, lies within the Four Corners Commission Region. These Forests' lands and waters are estimated to currently produce over 35 million visitor-days of recreation use. The contribution of these National Forest visitor-days to the GNP may be as much as \$350 million. Table VI-13 is a list of proposed recreation and tourism projects. Undoubtedly, several million dollars of Forest Service programs should have been added to the \$7 million of Federal contributions now shown in that table.
8. There appear to be no alternatives or priorities that have been developed. The plan calls for Federal outlays of \$1.1 billion between 1973 and 1980 with \$500 million coming during the years 1973-1976. Should there not be an alternative of \$100 and \$300 million levels in addition to the \$500 million level with an appropriate order of priority and synchronized development of the proposed projects?
9. The report presents information on the amount of Federal funds going into the region. It appears that the data in this regard may only include amounts paid out from other sources, along with supplementary grant funds from the Commission. The data do not appear to include the total funds received by farmers in the region under programs administered by the Agricultural Stabilization and Conservation Service. For example, in 1970 some \$5 million in ASCS cost-sharing assistance was received by farmers in the region in establishing conservation and pollution abatement measures and about \$64 million under other ASCS programs.

Sincerely,



THOMAS K. COWDEN  
Assistant Secretary



DEPARTMENT OF THE ARMY  
WASHINGTON, D.C. 20310

20 DEC 1974

Mr. Stanley Womer  
Federal Cochairman  
Four Corners Regional Commission  
Room 1898-C  
U. S. Department of Commerce Building  
Washington, D. C. 20230

Dear Mr. Womer:

We have reviewed the Four Corners Regional Development Plan sent to us by Mr. Robert E. Ruddy on behalf of the Four Corners Regional Commission.

The plan which is primarily a framework for broad strategies, should prove informative and useful to those planning the development of the Four Corners Region.

Considerable effort appears to have been expended in developing econometric models to identify the best areas for economic development potentials. However, in reviewing the proposed economic development program it was difficult to understand how this work had been used in selecting some of the proposed projects. Apparently the Commission is not concentrating all projects in growth centers.

Programs should be designed to minimize undesirable environmental impacts and generally provide for enhancement of the environment.

Little mention was made concerning the water resources of the region or of the water requirements necessary in implementing the recommended plans of development. Close coordination with State and Federal agencies who are preparing State water plans is encouraged. Although many industries and activities recommended by the report require small amounts of water, its significance should be considered. A change of water use or a water import plan may be necessary to achieve the development desired.

Mr. Stanley Womer

We appreciate the opportunity to review and comment on your development plan and are looking forward to participating in the meeting of the Federal Advisory Council on Regional Development on 21 December 1971.

Sincerely,

A handwritten signature in cursive script that reads "Charles R. Ford". The signature is fluid and elegant, with a large initial 'C' and a distinct 'F'.

Charles R. Ford  
Chief  
Office of Civil Functions



DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE  
OFFICE OF THE SECRETARY  
WASHINGTON, D.C. 20201

December 6, 1971

Mr. Stanley Womer  
Federal Co-Chairman  
Four Corners Regional Economic Commission  
Department of Commerce  
Washington, D.C. 20230

Dear Mr. Womer:

Thank you for the opportunity to review the draft copy of the Four Corners Regional Commission Development Plan.

We found the material complete and well documented. Certainly it represents a helpful foundation for economic planning in the Four Corners Region. HEW involvement appears to be confined to our participation in manpower training programs, which as you know, involves a partnership with the Department of Labor. Unfortunately, the Plan does not provide sufficient information for specific comment on projected programs. We would, however, expect that further details of future planning and the implementation would be worked out with our Regional Offices in San Francisco, Denver and Dallas.

In reviewing the Plan with our Regional Offices, we were somewhat disappointed to learn that there had been only minimal consultation with your staff. While we appreciate that your basic orientation is toward economic development, you will agree that socio-economic aspects of development in the Four Corners area must eventually require a greater involvement by our field staff.

Sincerely,

(Mrs.) Patricia Reilly Hitt  
Assistant Secretary for  
Community and Field Services



THE SECRETARY OF HOUSING AND URBAN DEVELOPMENT

WASHINGTON, D. C. 20410

DEC 8 1971

Mr. Stanley Womer  
Federal Co-Chairman  
Four Corners Regional Commission  
Department of Commerce  
Washington, D. C. 20230

Dear Mr. Womer:

We appreciate the opportunity to review and comment on the Four Corners Regional Commission Development Plan. We are favorably impressed with the quality of the report and its careful analysis of the current economic status of the area.

The plan appears to be a thorough and well thought out econometric approach to problems and proposed solutions to the four-state planning area.

It is apparent that considerable effort has gone into identification and classification of problems and needs within the planning area. For example, the findings clearly demonstrate that the economic problems of the Indians and Spanish surname persons affect not only their own welfare, but also affect the development potential of the entire region. The development plan recognizes this problem and presents a system of public investments to capitalize on the natural advantages of the region (i.e., scenic and recreational attractions, large supply of land, mineral and fuel deposits) in an attempt to develop solutions concentrating on closing the job and income gaps that exist within this population sector, which is primarily in the rural areas. We offer the following comments:

1. The plan presents a strategy in which a generalized economic improvement (i.e., a 5 percent yearly growth rate) is sought through approximately \$500 million of Federal investment in a three year period. This strategy is in two parts: economic development and human resources development. The report indicates that the severest economic deprivation occurs among the same groups who exhibit greatest need for human resources development. The report does not, however, indicate how the proposed physical development strategy will attack the severest aspect of the economic problem, nor how it will be channelled in such a way as to positively impact the human resources development strategy.
2. The report suggests an approximate \$1000 per capita level of investment in the region, but does not indicate whether this is a mild,

substantial or great increase over previous per capita investment in the region.

3. A comprehensive picture of the economic activity of the area is presented. Based on economic factors, a level of need to be met through public investment is projected. However, there is no evidence concerning the other methods used to derive the strategy. Particularly in the case of the Indian communities, it would be significant to know whether the heavy investment in the specific highways, tourism and industrial development projects represents the priorities of the people.
4. Similarly, the report would benefit by an indication of the extent to which its proposed strategy is derived from and coincides with that of the states, other regional bodies, local governments, the Indian Nations, as well as that of the funding agencies active in the area.
5. The report proposes a short range investment strategy of approximately \$500 million. Revisions of the report would be enhanced by a discussion of the administrative and management infrastructure needed to mobilize the application of and expenditure of \$500 million according to a concerted strategy in that brief time.
6. Although general economic development is the goal of the plan and generalized investment strategy is the basic strategy of the plan, we believe that the strategy for economic development must be comprehensive and also more specific as to who it will serve. For example, location strategies are extremely important for determining the success of an economic development program. There is a need to deal with planning of an overall development strategy to rationalize housing location, utilities investment, environmental factors, location of transportation routes and locations of industrial and other centers.
7. Similarly, in addition to the planning of the infrastructure development above, there is need for planning the development of management capability to (a) initiate and (b) carry out these expenditure programs, and (c) accompany them with other programs required to maximize their effectiveness. This could be a serious omission with costly consequences to the success of the program, at any expenditure level. These actions, although not specifically public expenditure actions, are important not only to increase the effectiveness of future investment in the region but, also to mobilize existing resources and remove some existing barriers to development.



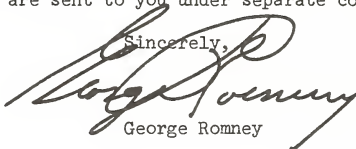
8. Although the report must consistently retain its broad regional scope, nonetheless some of the elements of the plan are clearly based on the perception of special circumstances and special needs. It would be helpful if these were made overt elements of the overall strategy. For example, given that the Indian and Mexican-American population is one-third of the total of the population of the region, it would seem beneficial to present the proposals for the Indian community in a summary of the strategy and actions to improve the economic and environmental conditions of the Indian in the Four Corner Region; a second summary would deal with the strategy and proposed actions to improve the economic and environmental conditions of the Mexican-Americans in the Region.
9. Similarly, with regard to the special circumstances of the urbanizing areas, a strategy addressed to the development of the urbanizing areas would strengthen the rationale for the investment proposals. We recommend that such a strategy include such considerations as adoption of measures to ensure adequate water supply, protect the environment, preserve adequate open space, rationalize local investment in development infrastructure and ensure adequate planning for the anticipated future demand for homes and other uses by the urban and rural populations in urbanizing areas. Consideration should be given to potential new towns development, innovative zoning and other land use controls, modern building codes suitable for local traditional building patterns as well as for new building methods such as industrialized building.
10. Housing is touched on briefly in the report under two categories: tourism and human resources development. Approximately 2500 homes are proposed as tourist development, and approximately 2000 homes are proposed for the indigenous and most depressed population. The report does not specifically deal with the consideration of large-scale home development and improvement as an economic generator for the most depressed sector of the community. Housing appears to have been considered as an economic generator in the context of tourism, but as a human welfare program when discussed in the context of the more economically depressed segment of the population.
11. The analysis of housing needs is essentially based on analysis of vacancy rates. The report states, but does not analyze further, that the vacant units are not well located for the labor force. Further analysis might provide a more fruitful basis for proposals, for example, housing costs compared to ability to pay, rural to urban migration trends, employment opportunity, availability of financing, and other relevant factors.

The proposal for housing, other than as part of the tourism strategy, is limited to self-help housing. We recommend a more complete consideration of Federal aids to meet a broad spectrum of housing needs, including not only self-help, but also other low rent programs, Federal Housing Administration programs, consideration of the HIP program of the BIA and Section 502 and 504 of the 1970 Housing Act administered by the Farmers Home Administration.

One of our major concerns is that the Four Corners Regional Commission exercise its ability to contribute to the development and institutionalization of the planning capabilities of the member states and their local jurisdictions. We believe that the recommendations made in this letter would strengthen the Commission in this role, and further enable it to achieve its objectives.

We commend the Commission on the quality of its economic analysis and plan. In addition to these comments, our Denver Regional Office has prepared comments, which are sent to you under separate cover.

Sincerely,

A handwritten signature in dark ink, appearing to read "George Romney", is written over the typed name. The signature is fluid and cursive, with a large initial "G" and "R".

George Romney



# United States Department of the Interior

OFFICE OF THE SECRETARY  
WASHINGTON, D.C. 20240

Dear Mr. Womer:

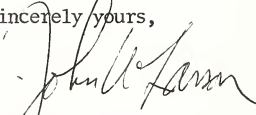
The Department of the Interior has reviewed the Four Corners Regional Commission Development Plan. The Bureau evaluations are not nearly as responsive as we had hoped. However, as you know, I am impressed with the general scope and quality of the Commission's plan and as was brought out in your recent briefing on the Four Corners Plan to senior departmental officials, there appears to be general agreement that the plan can be used as a programming and budgeting action document.

As soon as we can arrange for briefings by you and your staff to our key planning and programming personnel, we hope to develop the kind of constructive and useful suggestions that this report deserves. We are, however, forwarding a summary of some of the better comments we have elicited from our bureaus. We would hope that within the next 30 days, we would be able to furnish you with a more comprehensive assessment of the plan, with suggestions on how we might be able to assist in providing technical support and specific program actions to implement the near-term objectives of the plan.

At the December 21 meeting of the Federal Advisory Council, Mr. Lance Marston will represent the Department of the Interior and will have some specific suggestions on how the plan might be presented to OMB and how we might organize to keep the plan current and well-coordinated.

I want to express my appreciation to you, Dr. Kolp and Mr. Ellertson for the fine presentation on the Four Corners Commission's organization, plans and objectives. Be assured that my office will render every assistance in developing a realistic and useful plan of action for the Four Corners Region.

Sincerely yours,



Assistant Secretary -  
Program Policy

Enclosure

Mr. Stanley Womer  
Federal CoChairman  
Four Corners Regional Commission  
U.S. Department of Commerce  
Washington, D. C.

1. The Department considers that environmental impact analysis to be an integral part of development planning. Concern is particularly directed at mitigating potential environmental impacts to scenic and recreational resources resulting from the proposed highway program. Related to this is tourism and recreation potentials that can evolve from a development program that assures that the quality of the land resources are maintained while meeting the needs of the people of the Four Corners Region.

The Region represents a "natural tour package" and needs an intelligent use pattern to provide accommodations and facilities for tourists and economic gain for the area residents.

In terms of the highway program, the Bureau of Outdoor Recreation can assist with technical advice on the design features which should be considered in developing transportation facilities and the measures to be considered in the effort to mitigate the impact of the roadways on the environment. In the implementation phase, this organization can provide a great deal more in the way of technical and planning assistance and the coordination effort including actual review on the ground of proposed transportation projects as well as with consultation in the development of mitigating measures.

The roads relate directly to the creation of a recreation and tourism package involving the total scenic and recreation resources. In this, in addition to the Bureau of Outdoor Recreation, the Bureau of Land Management and the National Park Service can coordinate its recreation and tourism activity on the public lands with the technical and professional capacities of the Bureau of Indian Affairs on Indian Trust Land to develop a joint program to identify and evaluate tourism possibilities and to bring about their development. The Bureau of Sports Fisheries and Wildlife can provide analysis of species and make recommendations for development by identifying waters that have recreation potential. This organization can provide inventory on fish and wildlife values and habitats to be protected to provide for long range productivity. Coordination can be provided for these activities with the states which are responsible for fish and wildlife species resident to this area.

National Park Service can furnish information on present and proposed units of the National Park System in the area and the project demand for outside transportation systems and services that will be needed for recreation use and the enjoyment of the park area.

Together, the Department would want to work with you in identifying the long term "carrying capacity" of the region in terms of the resource base.

2. This leads to a strong recommendation for a Four Corners land-use plan to carry out the above, to avoid the many mistakes of uncoordinated growth, and to provide sound multiple-use land planning. The large federal land management in the region makes the development and operation of such a land-use plan a far more simple matter than in areas where the decision function is far more widely dispersed.

3. The provision of the necessary infrastructure, the industrial parks, the training program, etc. may induce an industry to locate in the Four Corners region or it may not. The entire range of inducement, including what is provided in the plan for the basic underlying requisites for development, and leverages stemming of ownership of resources should be explored in great detail to develop the strongest possible likelihood that the plan will indeed result in the anticipated private investment.

4. There is a heavy emphasis on the impact of the plan on the Spanish surname population and the Indian people. The Bureau of Indian Affairs has an operating program comprised of most of the elements in the Development Plan. While the Department should gain from the professional analysis in the Plan, considerable experience in both success and failure can be gained from the Bureau of Indian Affairs.

The Bureau of Indian Affairs is prepared to provide a comprehensive range of services for the development of Indian lands and resources of the Four Corners Area. This includes development of the basic economy and the infrastructure of roads, communications, and utilities. More specifically, BIA services which can be furnished are as follows:

- (a) Placement of industrial plants
- (b) Assistance in the establishment of business and service enterprises.
- (c) Assistance to tribes in developing housing
- (d) Plan, construct and maintain reservation roads
- (e) Provide technical guidance and assistance in management of Indian forest property, including timber sales, fire suppression, pest control, and forest industries.
- (f) Technical assistance and advice to Indian farm, ranch, and land owners on agricultural development and practices. Includes dry and irrigated agriculture.
- (g) Provide technical and professional services to identify and evaluate Indian tourism possibilities, bring about their development, and bring them to public attention.

- (h) Extend assistance through tribal organizations to individual Indians to meet credit and other financial needs in the conduct of productive activities and small businesses.
- (i) Assist with the employment of Indians through on-the-job training, institutional training, and job placement.
- (j) Provide real estate services to Indians including appraisal services, surface and subsurface leasing, updating of lease and rental charges, and technical research and surveys to support trespass claims and boundary problems.
- (k) Furnish judicial, and law enforcement services to Indian areas where such services have not been assumed by States or local units of government.

The aspect of labor mobility and labor immobility on the part of the Indian population will be a very critical to the success of the program in terms of achieving impact where needed. Unless strong measures are used for coordination, the result might be immigration of workers from other areas rather than the employment of the Indian and Spanish surname population.

We need to know the Indians involved in the population shifts of the past, and those that might be involved in the shifts of the 1970's. Our people in employment assistance in the Bureau of Indian Affairs are concerned with this aspect and their experience record and planned operations will be a useful resource for the Four Corners Development Plan.

In the planning for a development bank, the Bureau of Indian Affairs revolving credit loan fund should be considered for support and coordination.

5. We understand that the natural resource components of the Plan will be provided subsequently as an addendum to the Development Plan and that the Department of the Interior has had ample opportunity for input. There are some generalized observations on the natural resource sectors in the Plan. It is felt that the public investment program designed to stimulate mineral development might not get the results intended. The road program might offer little, if any, incentive and the mapping program is too indefinite to evaluate its effectiveness. It appears on the surface that any program whether mineral surveys or mapping will be many times more than presently in the plan. An effective procedure would consist of a team effort of mining engineers and geologists.

The Bureau of Mines and the Geological Survey have the capacity to provide technical assistance in determining the type of mapping required and the best procedures to follow to have a mineral program that would result in development. A program of geologic mapping would be instrumental in stimulating mining industry activity.



In addition, the Geological Survey has unique technical strength to provide information needed to develop and conserve the very important water resources of the region. Industrial development was identified as one of the most promising means of alleviating the economic and social problems confronting the Four Corners Area. The water supplies that would be needed for much of the industrial development could be supplied through existing, authorized, proposed or potential Bureau of Reclamation Projects. Several of these multipurpose projects include or contemplate inclusion of facilities to store and regulate water for this purpose. Some of these projects or units are Dallas Creek, West Divide, San Miguel and Dolores in Colorado, Animas La Platte in Colorado and New Mexico, and Unitah, Bonneville, and Jensen in Utah. These authorized developments have over 320,000 acre-feet of water allocated for municipal and industrial purposes. There are other projects in the area that have water allocated for municipal and industrial use. Should there be a need for larger quantities of water for these purposes changes in use could be effected.

Useful inputs to the mineral resource analyzing will be found in the mineral resource reports in the Upper Colorado and Lower Colorado River Basin studies and the State Mineral and Water Resource reports for Utah, Colorado, New Mexico and Arizona. In addition, the U.S. Geological Survey has published detailed reports on smaller areas within the Four Corners Region.

Large coal reserves, a huge west coast market for electrical energy, a ready supply of labor, and a growing concern for a clean environment all make the Four Corners area an ideal choice for coal gasification and liquefaction plant sites. The Bureau of Mines and the Office of Coal Research are presently working on four pilot gasification plants, all to be operating by 1975. By 1978, plans should be ready for a full-scale, 250-million-cubic-feet-per-day plant. Whether erected by industry or as a joint industry-public venture, this plant employing about 1,700 people could help encourage this energy process nationwide. Again, the Four Corners area is the logical site for a coal liquefaction pilot plant, the next step in Bureau of Mines research. This, too, could logically result in a new industry for the area. Feasibility, labor availability, and coal reserve studies are prerequisites for any such mine-mouth installations. Labor training programs in preparation for full scale production should be concurrent with pilot plant operation.

Upgrading the status of the area's Indian coal miners could be achieved by sending experienced candidates to the Bureau's Federal Mine Health and Safety Academies for training as Federal mine inspectors under the Manpower Development Training Act. The Bureau of Mines, anticipating mineral developments on the Papago Indian Reservation, has recommended mine training programs for these Indians.



Assuming successful Bureau of Mines insitu tests on tar sands in about 1973-74, a pilot plant, oil recovery experiment could be begun in Utah, which has a reserve of 10-12 billion barrels of oil in tar sands. Recovery of the 5 billion barrels on or near the Uintah and Ouray Indian Reservation would have substantial economic benefits.

Mine reclamation at producing and abandoned mines could be accomplished by an on-the-job training program in mobile schools teaching the operation of heavy equipment. Presently conducting mine reclamation research, the Bureau could supply technical assistance to evaluate reclamation sites. Best use of reclaimed land would require Federal-State cooperation.

The Bureau is capable of assisting in feasibility studies to establish light, ferrous-scrap plants (particularly tin-plated cans) for copper precipitation in recovery operations at Santa Rita, New Mexico; Bingham Canyon, Utah; and in the Tucson, Bisbee, Morenci, and Miami areas of Arizona. Technical assistance can be given in roadbuilding studies related to mineral development. Bureau engineers could supply technical aid in any feasibility studies for mining, beneficiation, and metallurgy of new mineral deposits.

The Bureau of Land Management is currently conducting a resource inventory of the public land we manage and this will be the basis of multiple-use planning. The multiple-use system should be applicable to other lands. Since a large portion of the Four Corners region is composed of public lands, our close coordination in land-use and natural resource planning will be very desirable for our mutual goals for economic development for the people of the region and the sound management of the land and environmental base. A plan for identifying where the public land is in relation to the zone of poverty is being prepared to determine what needs to be done. You will receive the plan within a short time.

6. Finally, a basic need of the Four Corners Plan is for a system of time phasing to integrate various activities, to set priorities and to schedule. This is probably a prerequisite to funding. The linkages in the plan need strengthening and a display of time phasing would help show the linkages. Our various Bureaus should be able to provide a useful input to the time phasing and we will be most willing to provide such help.

U.S. DEPARTMENT OF LABOR

OFFICE OF THE UNDER SECRETARY

WASHINGTON, D.C. 20210



DEC 6 1971

MEMORANDUM FOR ROBERT E. RUDDY

Special Assistant to the Secretary  
for Regional Economic Coordination  
U. S. Department of Commerce

SUBJECT: Review of Four Corners Plan

Thank you for giving us an opportunity to review the Four Corners Regional Commission Development Plan.

The Plan represents a sophisticated application of computer analysis to basic economic and demographic data in order to highlight the strengths and weaknesses of the Four Corners Region's economy. Through use of these techniques, a substantial body of vital information has been made available to the Commission by the authors of the report.

The Department of Labor is particularly interested in the concepts developed regarding income and job gaps. In estimating job gaps at various levels of assumed growth, the report points out the requirements of job and income gaps in future years. While it is difficult for us to know the accuracy of the estimates based on economic manipulation of the variables, the techniques employed do permit a quantitative review of those factors needed by the Region to achieve employment opportunities and income similar to those for the Nation as a whole. Regarding this information we suggest that a set of summary tables be included to help the reader follow more easily the various alternative combinations of growth and associated investment by the public and private sector to achieve various levels of employment and income.

The report properly indicates the intimate connection between economic development and jobs. However, we note that on the one hand--in citing the weaknesses in the Region's economy--the authors mention the presence of Federal Government subsidized industries (such as aerospace and defense) which in recent years have had a depressing effect in the region, while on the other hand the authors appear to place great dependence on the Federal Government for necessary resources to develop the Region.

We are surprised at the relatively small amount of resources reflected in the plan for manpower development -- \$63 million out of \$500 million for FY 1973-1976. Moreover, of this amount, \$42 million is for vocational education programs. There undoubtedly are substantial Department of Labor funded manpower development and training programs in the area, and the plan should explicitly recognize the role of these programs in the development of the area.

Since the Department is especially concerned with improving the skills of the disadvantaged -- of whom American Indians and Spanish surnamed persons in the Four Corners Region are an important part -- we were pleased that the Plan emphasized the importance of developing programs to relieve the high unemployment and low income patterns of the Region's minority population.

I should like the Commission to know that our Regional Offices and State Employment Security agencies having jurisdiction in the Four Corners area will be delighted to discuss appropriate program planning for the anticipated manpower development activities of the Region.



MICHAEL H. MOSKOW  
Deputy Under Secretary



OFFICE OF THE SECRETARY OF TRANSPORTATION  
WASHINGTON, D.C. 20590

ASSISTANT SECRETARY

Mr. Stanley Womer  
Federal Cochairman  
Four Corners Regional Commission  
U.S. Department of Commerce Building  
Washington, D.C. 20230

Dear Mr. Womer:

We have reviewed the transportation aspects of your Regional Development Plan dated October 1, 1971, which was transmitted to us by the Department of Commerce on October 28, 1971.

From this review, we are pleased to see that the Plan clearly came to grips with many of the cultural and socio-economic obstacles to the region's development. The Commission's recognition that the natural resources of the region have not benefited Indian and Spanish surname persons is a step in the right direction. In this connection, the Plan's strategy for closing the job gap is excellent. Also, the regional and subregional econometric models for problem solving were impressive.

Although the Plan recognizes the environmental and ecological impact of mining activities as well as highway construction in the report summary, relatively little attention has been given to this growing constraint on governmental activity in the body of the report. Because of the vast distances involved, it does not appear that commercial bus transportation will become available to the labor force. Perhaps innovations such as the use of personnel carriers, buses and cars belonging to Federal, State and local agencies should be given consideration as a means of increasing personal mobility in the area.

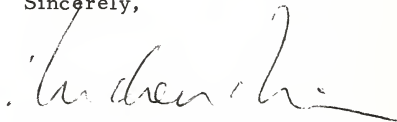
The economic planning model has pinpointed investment opportunities in two modes of transportation -- highways and aviation. Such investment should be supportive of agriculture, mining, industry, tourism, recreation, health, education and manpower objectives. The Department was pleased to note how each of the sixty highway projects was documented to show improvement in the accessibility to the various developmental areas. The time span (FY 1973-1976) for completion of the highway projects appears to be reasonable.

The Airport section of the Plan is in consonance with the recommended development in our National Airport Plan, and most of the proposed airports would be eligible for Federal matching funds. However, those locations which are not included in the National Airport Plan would not be eligible for Federal aid. Also, when the Four Corners airport plan is submitted to DOT, the FAA will not be able to assign one priority to the 74 individual improvement projects. FAA has the policy of considering each project on its own merits. Also, the price tag of \$20 million for these improvements may be too low in terms of today's construction costs.

The treatment of rail transportation should be expanded. There is no mention of the 9,400 miles of railroad or the 20,000 railway employees in the four-State area. Particularly in view of the major environmental impact anticipated from the development of this region, full consideration should be given to use of existing rail infrastructure.

In conclusion, the Commission should be commended for its work on the Plan. It should provide the support for an excellent presentation to Congress when the Commission is seeking funding authorization in 1973.

Sincerely,

A handwritten signature in dark ink, appearing to read "Robert Henri Binder", with a long, sweeping horizontal stroke at the end.

Robert Henri Binder  
Acting Assistant Secretary  
for Policy and International Affairs

Four Corners Regional Commission Development Plan

General Observations

Two limitations of this document constitute a relevant introduction to more particular comments regarding the economic aspects of the Development Plan. One is the fact that the document is presented as the work of the Center for Business and Economic Research - Brigham Young University. Thus it is not an official development plan of the Four Corners Regional Commission.

Similarly, even when evaluating only the economic aspects of the document, there is nowhere to be found a draft Environmental Impact Statement. Since the proposals call for approximately \$500,000,000 in Federal expenditures for FY '73 through FY '76, and similarly \$120,000,000 in State and local funding, such an EIS is clearly required under Section 102(2)(c) of the National Environmental Protection Act.

Economic Issues

1. The Proposed Public Investment Program for FY '73-'76 is presented as a single, deterministic plan. No options are provided, the text does not address the consideration of alternatives, and there is no analysis of possible variations in the distribution of investment among the "sectors" selected for expending \$620,000,000. In short, there is not even a primitive effort to consider opportunity costs, even if we accept the decision to commit \$620,000,000 of public funds over a four year period.

Since continued expenditures reaching a total of \$1,100 million through FY '80 is proposed, this in essence is a proposal of public commitment for the entire period, without an analytical evaluation of varied distributions.

2. The forecast of growth in the Four Corners Region, by sector, is couched in terms of Gross Product, Earnings, and Employment. A "High Growth" and "Low Growth" forecast is made. Transportation is the biggest single item in the public investment portfolio - \$400 million of the \$620 million for FY '73-'76 - but the anticipated growth of earnings and employment does not keep pace with gross product growth in the Transportation, Communication, and Utilities (TCU) sector.

In fact, for 1970-1980 the projections indicate that only in Services, Federal, and State and local government does earnings growth exceed gross product growth. As is indicated in the Report, employment growth lags.

3. The emphasis on Transportation focuses on opening up mining, timber, oil and gas areas; providing access for tourists; and access to "industrial parks" among Indian and Spanish surname population elements. The report acknowledges the weakness of mining and other exploitive development of raw materials, but apparently expects these sectors to provide gross product, earnings, and employment. Nowhere is there an analysis of relative wages, skills, and long-term survival of such a base for economic growth.

The Report spends much time and space indicating the difficulty in closing employment and income gaps within the Four Corners Region, noting that there is a need to improve the quality of the labor force through manpower training. /p. 11-30/ At the end of the same paragraph, it is noted that spending in health and housing are given only secondary attention. Certainly investment in the health and well-being of the individual is as economically sound as investment in his skills. Even though immediate economic returns might be sacrificed, a view to the long-run results of such investment might show that future economic returns, discounted to the present, would be even greater.

An alternative solution to the job-and-income-gap problems of the region is suggested in this Report; that is, that out migration of labor might help relieve these problems. If this alternative solution is really presented seriously, then it also seems that a re-evaluation of transportation expenditures is necessary. Coexisting policies of net out-migration and increases in roads and airport facilities for the region are not a priori complementary.

4. Income distribution by salary/wage brackets is never discussed. If "leakages" by export of earnings occur, even if earnings and employment rise, there is still a critical need to evaluate how the earnings distribution will change.

5. Indian and Spanish surname groups are referred to as having low skill levels. Some funds - not estimated in detail and only \$25 million for FY '73-'76 - are allocated to these groups. But there is no indication of how the total public investment programs proposed will serve these groups, compared to the other elements of the population. Surely there is a need to spell out assumptions and projections along these lines.

6. Education and Health receive only \$112 million, or one-third the amount going to Transportation. Again, no estimate of the results (benefits) are provided.



7. In general the entire proposal lacks even the semblance of a serious effort to evaluate public investment costs against regional socio-economic benefits. The growth areas discussed are among the most potentially deleterious to the environment. It is therefore absolutely necessary that viable safeguards be planned and implemented along with other plan features. In fact, pp. II-38 ff openly identifies the fact that one cost - protection against environmental degradation - has not been factored into the analysis. This despite the fact that the Report states (p. II-39) "part of its development program...has environmental implications. For example, the highway construction program for the support of mining and tourism and recreation projects will have an impact on the physical environment." It is obvious too that in the critically water "short" Southwest, great foresight must be exercised in order to assure an adequate (in every sense) supply of water. The plan does not, we believe, fully consider the several problems associated with this subject. More attention should be given matters such as interstate, interbasin, and international water rights and needs for example. Problems like increasing salinity, sedimentation, ground water depletion, etc. must be addressed before economic growth is fostered. The quality of the waters is surely as important a subject as quantity, and while the inclusion of 24 waste treatment facilities in an important facet, an overall program for achieving water quality standards should be made a matter of high priority.

#### Conclusion and Recommendation

It is concluded that the Four Corners Commission has not prepared a true planning document. The Report is rather fragmented, giving no unified view of the Southwest area. Further, the document here considered does not have sufficient and appropriate economic analysis to conclude that the socio-economic benefits from the proposals advanced outweigh the total economic costs.

It is recommended that the plan not be implemented.

Instead, it is recommended that the Environmental Protection Agency cooperate with the Four Corners Commission (as indicated on p. II-39) "in order to protect the natural beauty and other aspects of the region, and to keep it habitable." In the reevaluation, it is recommended that consideration be given to the possibility of developing sub-regional plans so that local problems and recommendations could be more closely tied together, thereby making the resulting revised Report a more relevant endeavor.

## Office of Economic Opportunity

### COMMENTS ON THE FOUR CORNERS REGIONAL COMMISSION DEVELOPMENT PLAN

The usefulness of an econometric model for planning purposes cannot be disputed. But a model is a useful device only as long as the variables are predictable with reasonable accuracy. The usefulness depends upon the extent to which the input variables can be controlled in real life, and also to the extent that the economic stimuli suggested by the model can be employed. Failure to follow the pattern must mitigate against the achievement of the predicted results.

The outmigration postulates which it is presumed would reduce or eliminate the job gap might contribute to the solution of the Four Corners problem in specific areas, but if not properly controlled and directed, it would merely cause the problem to appear or increase elsewhere. Such control and direction would be extremely difficult, if not impossible, to achieve.

Disjointed, unrelated projects, no matter how well funded, would not necessarily improve conditions or fit the desired growth patterns. Whatever is done should be carefully, uniformly and jointly planned as an integral part of the overall development plan. This will require full cooperation and support from all partners and the vestiture of such control in a central body. Can the Commission be assured that the partners will relinquish control to that extent for the remainder of the '70's?

References to the investment of Federal funds in the Four Corners area seems to overlook the amounts already placed by OEO and fails to include those which will undoubtedly accrue in coming years. We believe that OEO has a large stake in the economic and social development of the people in this area. OEO funds many projects among the native American and Spanish surname people, who are pointed out in the study as the segment of the population most adversely affected. OEO would expect to continue to fund such projects and would also expect to work compatibly with the directions of the Four Corners Regional Commission to achieve the goals of social change, economic development, and improved conditions for the people of this area. OEO's program directions pursue the announced goals of the Administration for emphasis on programs involving Indians and Spanish surname constituencies.

We are concerned about the involvement of all levels of state and local government in the plans which may be formulated. Without full involvement it is quite likely that these plans cannot succeed. It is no longer possible to plan in splendid isolation and to then expect those plans to be dutifully carried out by those who have had no voice in the decision. We encourage the broadest possible involvement of representatives of the people affected by the plan.



U.S. GOVERNMENT  
SMALL BUSINESS ADMINISTRATION  
WASHINGTON, D.C. 20416

OFFICE OF THE ADMINISTRATOR

NOV 30 1971

Honorable Stanley Womer  
Federal Co-Chairman  
Four Corners Regional Commission  
U.S. Department of Commerce  
Washington, D.C. 20230

Dear Mr. Womer:

As requested in your memorandum of October 28, 1971, we have reviewed and are enclosing our comments of the draft of the Four Corners Regional Commission Development Plan.

We are pleased to accept your invitation to attend the meeting of the Federal Advisory Council to discuss the Plan in detail. Hopefully, our enclosed comments may aid in coordinating our common goals and objectives with tools of implementation such as the Small Business Administration's financial assistance, management assistance, leasing and bonding programs.

Sincerely,

Anthony G. Chase  
Deputy Administrator

Enclosure

## SMALL BUSINESS ADMINISTRATION REVIEW OF THE FOUR CORNERS REGIONAL COMMISSION DEVELOPMENT PLAN

The Secretary of Commerce, Maurice H. Stans, has set forth the principal purposes to be achieved by this review process, and the desired scope of the review by the Federal agencies, which are represented on the Federal Advisory Council for Regional Economic Development (FACRED).

### General Observations

The Plan is voluminous, comprehensive and very idealistic. The econometric model used in the Plan's formulation, while unique in its approach, by admission of its authors contains weaknesses. In several instances there is a paucity of reliable data and several independent variables are held exogenous. Further, it appears that some of the human factors were minimized through attention to the mechanical manipulation of the model. It also appeared that many of the proposed projects in education, highway construction, water and sewer construction, airport improvement and construction and others were based more on availability of Federal programs than on basic needs or priorities.

The recognition of the variances among the majority and minority groups coincides with the Small Business Administration's priorities of emphasizing assistance to the disadvantaged and with special emphasis to rural and small urban areas. The Four Corners area is a prime example of both of these priorities. However, neither the SBA nor its programs are directly or indirectly referred to in the Plan. Apparently the Plan confines itself almost wholly to agencies with grant funds. In this regard SBA does possess financial, management assistance, procurement, leasing and bonding programs which could lend to more effective implementation of the Plan.

### Specific Items of Observation

In reviewing the Plan for possible conflicts in authority, jurisdiction and legislation, there is no evidence of overlapping of Federal and local programs. However, with reference to the Small Business Administration, the conflicts are not identifiable because the Agency

and its programs are not covered. The Plan recommends that "full and adequate consideration be given to the establishment of a development bank for financing private investment ventures." SBA's 8(a), the EOL and 501 and 502 programs can presently provide some assistance in establishing new business ventures. If more capital is needed, additional funding could be handled through existing or related programs in SBA. The proliferation of programs in the Federal posture could be reduced through the utilization of existing programs not requiring legislation, but funding.

Priorities and timing, from the SBA standpoint, coincide with SBA priorities of assistance to the disadvantaged (in this case the Indian and Spanish surname persons) and economic development in deprived areas. The proposed priorities of assistance to disadvantaged with emphasis on rural and small urban areas are epitomized by the Four Corners region. Accordingly, the timing is good and the Plan helps substantiate the Agency's priorities, both past and future.

For example, approximately 30 percent of the persons in the region are minorities, i. e., 30 percent of the region's population are Indian and Spanish surnamed persons. These two groups represent two-thirds of the region's job gap and three-fourths of the region's income gap. Estimates indicate that the Indians have 50 percent lower level of education and skills and the Spanish surname persons 25 percent lower than the national average.

Estimated per capita income for the Indians in 1970 was between \$900 and \$1,100 depending on whether the census figures of 157,000 or the BIA estimate of 184,000 is used in the computation. The regional average per capita income is \$3,328 and the national average is \$3,923 for 1970. Another fact which points out priority needs in the direction mentioned above is the fact that the population density in 1970 for the Four Corners Regional Commission was 6.8 persons per square mile compared to 55 persons per square mile for a national average. (This is even more pronounced if the four larger SMSA's are extracted.) It can readily be seen that the area is sparsely populated, with considerable distance between cities of any size.

The report shows the average per capita income as \$795 below the national average. This is not totally unexpected considering the standard of living in the region, the sparsely populated areas, the lack of water for irrigation and the relatively small amount of agricultural land. Also, one should consider that many items may be raised for consumption by the grower; and in addition, bartering and exchange customs and traditions are important to the inhabitants. To illustrate, some twenty-five years ago several modern houses were built on an Indian reservation in Utah and the Indians were moved from their tepees to the houses. A few weeks later, upon visiting the reservation, it was found that the Indians had moved back to the tepees and put their animals into the houses. This points up to the need to recognize customs and traditions and to consider the human element along with the calculated econometric models.

Another point of interest in planning an economic development program for the region, including the establishment of priorities and timing, is that the region covers 189.3 million acres or 296,000 square miles. This amounts to 8.2 percent of the total United States land area. Of this area the Government owns or controls 71 percent. Of the Government land, 44 percent is controlled by the Bureau of Land Management and 38 percent is in national forests. Of the total region's land area, 153 million acres or 81 percent is used for grazing. Only 3.4 million acres are irrigated crop lands and 5.6 million acres are dry crop lands. This amounts to 8.9 million acres or 4.7 percent of the total area devoted to crop lands. Availability of water and production of crops are highly correlated. It would appear that more emphasis and priority should be given to irrigation projects. Practically all of the \$10 million proposed for water and sewer projects are for city water and sewer facilities.

While SBA is not directly connected with projects involving irrigation and water, this appears basic to the infrastructure and probably should provide jobs at a cost considerably less than the \$16,267 capital expenditure suggested in the Plan.

There are some possible conflicts in areas not previously identified by SBA or the Four Corners Commission. For example, practically all of the regional and educational programs listed, and most of the remaining educational projects (involving nearly \$92.5 million) are directed toward vocational education. First, it is doubtful if there would be enough people to fill the proposed vocational schools; and secondly, that some conflicts may exist with the local and state school districts and the BIA schools.

Several reports by various groups have been mentioned throughout the Plan. The one on housing has not been completed and the one on industrial development, done by Battelle Memorial Institute, developed a matrix whereby various factors were considered in the selection of 100 potential industries. Such studies and approaches tend to minimize the potential conflicts which may result from fractional programming emphasis. The Plan recommends industrial development of some \$15.5 million; but it is primarily for the development of industrial parks rather than the development or enticement of industries.

The Four Corners Regional Commission Development Plan has attempted to coordinate and synthesize the various plans previously submitted dealing with specific functional areas. The Plan suggested that the Four Corners Region may be compared to an underdeveloped or developing country. Accepting this as a fact, it would emphasize the need for a high priority to develop a good infrastructure. However, it recommends additional environmental and ecological research to help protect the region's assets and still promote economic growth and development. It seems that the preceding factors should have been considered before such projects were recommended.

Regarding national policy, there are several points of concern in the Plan. The previously mentioned establishment of a development bank is significant. Utilization of established SBA programs would probably require no additional personnel, but merely a substantial amount of Government funding. In this manner, more immediate response in providing the required services would probably be obtained than through the establishment of a development bank.



Another consideration of national policy may be emphasis shifting to accomplishments with less expenditures, effort and time being devoted to planning. For years planning has been paramount and vital to any project. However, we have seen millions of dollars spent on plans by regional commissions and other Federal projects which probably will never come to fruition. Vast sums are being spent on studies and reports. One regional commission admits to nearly 1,000 different plans and studies, several of which are mentioned in the Four Corners Plan. Perhaps a little less idealistic, voluminous, time-consuming planning and more action would help balance the scale.

**APPENDIX B**

**WRITTEN STATEMENTS OF  
COMMERCE INTRADEPARTMENTAL COMMITTEE**

# Memorandum

TO : Robert E. Ruddy

DATE: December 6, 1971

FROM : Robert ~~E.~~ Murphy

In reply refer to:

SUBJECT: Four Corners Development Plan dated October 1, 1971

## 1. Summary

In this Plan, the Four Corners Commission has produced an extremely thorough analysis of the regional economy and recommendations for action based both on a broad research base as well as on the practical experience of Federal, State and private personnel concerned with the problems of the region. The Commission has had the imagination to develop an experimental regional econometric model and in so doing has derived useful insights into the economic dynamics of the region. The Plan demonstrates an extraordinary degree of Federal-State, and public-private cooperation, extending from the early stages of research design to final project recommendations. It is the thesis of this review that the Plan is essentially a good one, responsive to the criteria of the Public Works and Economic Development Act. However, strengthening and editing are required to make the Plan more useful. This review will focus on some of the areas where the Plan may possibly be improved.

## 2. Need for Improved Managerial Utility

As a "regional action Plan", the Four Corners Plan presumably should target on the decision-making, public or private sector end-user, should follow a format allowing for efficient comprehension and assessment of premises, strategies and basic data by generalists as well as economic technicians, and should facilitate concurrence (or lack thereof) with Plan recommendations. The present Plan document, consisting of 507 pages, plus appendices of hard reading without identification of alternative strategy or program options, simply cannot have the desired impact on decision-makers.

The Plan needs an Executive Summary, and would probably benefit from a substantial relegation of textual and statistical material to appendices.



BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

The Plan's utility is also restricted by its lack of graphics, its reliance on insufficient and, in some cases, poorly reproduced maps and on detailed statistical tables within the main body of the text. The computer maps, while potentially useful, are incomplete in coverage and at best difficult to read and interpret. In reading the Plan's discussion of transportation needs, this reviewer looked in vain for maps of existing rail or road service in the region. Topography, which is critical in this Region, can barely be inferred from the computer maps. For the policy-making end-user, the detailed statistical tables given in the text of the Plan have limited, and perhaps even negative, utility. It would have been better had the Plan summarized the essence of these tables in the form of graphic displays.

A possible example for clarity and simplicity of presentation may lie in the Arizona Preliminary State Plan of 1969. This State plan, funded by the Four Corners Commission and obviously a supporting document to the regional Plan, vividly and concisely describes the economy of the State, albeit in preliminary manner. It is the reviewer's understanding that the Arizona plan has proved sufficiently useful to public and private end-users that it has already gone through two printings.

### 3. Relevance of Model

While the Plan gives heavy emphasis to its econometric model of the region, the model seems to raise as many questions as it solves and its use should possibly be more heavily qualified in future editions of the Plan. The model is limited since it treats of status quo regional dynamics only, it builds on an admittedly questionable data base and it restricts itself solely to the regional geographic area. The Plan itself references the model's limitations; evidences of the model's validity occur mostly in the form of scattered statements that the model's output appears reasonable in select geographic areas. Since the model is used for the significant purpose of determining aggregate capital investment needed in the region, it would seem reasonable that the Plan contain its own "proof" of model validity in a form understandable to a non-technician.

A valuable aspect of the Plan is its discussion of the total economies of the four component States of the region. The four States individually and collectively are dynamic and fast-growing, at rates exceeding the overall national economic growth. SMSA's both inside and outside the region are growing in population and income, and substantial intra-state (and intra-regional) migration is occurring, as noted in the Plan. Numbers of residents are leaving the regional area and apparently taking jobs in the non-regional portions of the four States. All this

suggests that the geographic area selected for planning, and for such key analytic supporting as modelling, might better have been the four States individually or collectively, and not the depressed region as designated. By allowing the depressed region to determine the geographic limits of the model, which in turn identifies investment needs, the Plan assumes that intra-state migration within the Four Corners States will continue at approximately present levels. It dismisses total out-migration as an option as "staggering" in cost, but neither identifies this cost nor the cost of partially solving the region's problem through an increased out-migration rate.

More generally, by being constrained to the admittedly artificial boundaries of the "regional" portion of the Four Corners States, this essentially static model tends to impute a degree of validity or finality to the regional boundaries which was certainly not shared by the States and the Department of Commerce when the region was designated in 1966. It assumes a static economic structure, when perhaps major structural changes are desirable. Indeed it possibly handicaps the Commission from performing its function under Section 503(a)(1) of the Public Works Act, to ". . . advise and assist the Secretary in the identification of optimum boundaries . . ." (emphasis added).

It may also be prudent to warn that however mathematically complex the regional model may be, like any model it necessarily oversimplifies the dynamics and potentials of the intricate socio-economic reality which it attempts to portray.

All of this is to say that the model has probably served a useful purpose in helping the Commission to understand the regional economy and the general interrelations of its sectors, and in making a crude assessment of what capital investment would be needed in the absence of an innovative development strategy. The model probably has performed a useful function but should be used with extreme caution in formulating a regional development plan for the future.

#### 4. Investment Sectors and Projects

Validity questions aside, the model used in the Plan has produced only estimates of total capital required to achieve specified economic objectives. The model apparently does not identify priority sectors for investment nor, consequently, specific projects. The Plan itself, however, forthrightly identifies investment sectors, with highway investment heading the list, but does not explain the developmental strategy under which the sectors and projects were chosen. Under such circumstances the policy-making end-user of the Plan cannot reasonably infer the strategy or assess recommended sectoral and project investments. However, the

Plan contains substantial internal evidence that the region has been thoroughly examined in all its economic sectors, and clearly states that relevant officials of States and Federal governments have been involved both in the design and monitoring of research, as well as in the selection of sectoral and project priorities. The Plan thus does state that a substantial body of knowledge, and consensus of concerned public officials underpins the sectoral and project priorities identified. This cooperative effort at assessing the region, and at arriving at priorities must be classed as a major achievement of the Plan and may well represent a milestone in interstate, inter-Federal, and Federal-State cooperation in designing a development program.

On the other hand, aside from a few innovative proposals referenced generally such as a recommendation for a national development bank, the Plan confines its public investment recommendations to those sectors presently legally eligible for funding (e.g. highways). Innovative projects, programs, or approaches, are not featured and no mention is made of possible reallocation of on-going Federal and State expenditures to more effective programs or projects. While solicitation of the views of all concerned public officials is commendable, one wonders whether in the process the Commission may have sacrificed imagination and the possibility of proposing new and perhaps unusual approaches to problem-solving.

## 5. Transportation

The lack of adequate graphics, including maps, obscures the transportation situation of the Four Corners Region. While the Plan identifies thin population and consequent isolation as perhaps the major problem of the area, and thereafter recommends major road-building, the Plan does not address itself to the unique transportation advantages available to the region. The Four Corners lies astride several major national rail and road arteries, whose construction, and whose continuance depends on the economy of population centers East and West of the Four Corners, regardless of the economics of the region itself. In an economic sense, these are "free" major capital assets to the Region. Principal routes of the Union Pacific, the D. & R. G. W., the Santa Fe and the Southern Pacific cut across the Region.

Principal arms of the Interstate system likewise cross the Four Corners. These communication lines give first-class access to both Eastern and Western markets. It would seem that a growth center strategy might possibly be developed with the growth poles developed on these communication arteries and where opportunities would be afforded to the dispersed population to in-migrate to such centers. This consideration raises the further question as to whether the Commission has a strategy for development of growth centers or even new communities.

Data from other sources indicates that all Four Corners States have been experimenting with new communities, with Arizona and Colorado being particularly prominent in this field. There should be expertise, therefore, in the Four Corners States to develop a growth center strategy.

The Plan recommends that over the period FY 1973-76, \$240 million out of a recommended total investment of \$500 million in new Federal money be earmarked for highways, and that this be matched by \$37 million out of \$120 million in new state and local funding. Such emphasis on one single, capital-intensive sector must be supported by a strategy. Such a strategy, in turn, must address itself to the realities and potentialities of intra-regional and intra-state migration, and answer the question whether it might be cheaper and more desirable to bring many of the people to jobs through short-distance migration rather than jobs to the people through expensive highway construction.

#### 6. Alternative Investment Mixes

There is, of course, no estimate at the moment as to how much additional public money may be made available to implement the Four Corners Plan. Obviously, availability of Federal and State resources must reflect other competing public needs. As presently drafted, the plan calls for specific public investments over a four-year span, and looks forward to a ten-year program at a recommended level of \$1.1 billion of Federal funds, plus \$300 million of matching State funds. Quite clearly, the specific amounts of money sought by the Commission may not be available. From a decision-maker's standpoint, the Plan would gain greater utility if alternative funding levels were assumed, and the investment mix at such alternate funding levels identified. Presumably sectoral and project priorities would vary at different funding levels. The impact of alternative funding levels on the job and income gaps would also be useful in optimizing allocation decisions.

#### 7. Conclusion

The Four Corners Commission has done a good job of assessing its resources and problems and of pooling the experience of State and Federal personnel experienced in the region. While an explicit development strategy is not given, it would appear that the program and project recommendations in Chapter VI represent a distillation of current thinking on, and for the region. As such, the program and project recommendations of this chapter would seem to stand independent of the econometric model which precedes except for aggregate magnitude. It would appear most useful, therefore, as the Plan is refined, to de-emphasize the model discussion, to edit the Plan heavily for brevity and legibility, and to strengthen the recommendations with an explicit discussion of the selected strategy, including discussion of alternative strategies.





**U.S. DEPARTMENT OF COMMERCE**  
**Office of the Secretary**  
Washington, D.C. 20230

December 10, 1971

**MEMORANDUM FOR Robert E. Ruddy**

**From:** Anthony Radspieles *AR*  
**Subject:** Review of Four Corners Regional Commission Development Plan  
(October 1, 1971)

When compared to the commendable start already made in last year's document (September 17, 1970), the current Plan represents another impressive step in the evolution of the Four Corners planning effort.

The planning document is replete with economic and statistical data covering the most important sectors of the Four Corners economy. The fact that it is evolving into a more comprehensive work provides the basis for more detailed critique and discussion of those parts which were entirely absent in earlier versions of this Plan. It is the purpose of this review to highlight elements of the Plan in need of further refinement and analysis. The following observations are therefore made under the headings: Editorial, Substantive and Policy.

EDITORIAL

1) Abstract

Since the present edition of the Four Corners Plan is a fairly voluminous and detailed study, it is most essential that a succinct executive abstract be prepared as a frontpiece adequately highlighting the most important findings and recommendations of the Plan. The nearest equivalent of an abstract is contained in Chapter II of the report (Summary of Findings and Recommendations). This could serve as the backbone of an executive abstract but should be placed organizationally as a self-contained section immediately following the forward, with clearly presented graphic displays (e.g., population, job gap, employment, unemployment), instead of repetitious use of statistical tables as is done in Chapter II (e.g., Table II-2, II-3).

2) Graphics

Additional graphic displays of a meaningful nature could be used more extensively, throughout the document (e.g., Income Gap, Transportation Network, Federal Expenditures).

### 3) Definitions

Also, a separate section clearly defining the Job Gap, Income Gap and other concepts as used in the 4-Corners Plan would be extremely helpful. These definitions might be included in the Appendix preceding the data information for the econometric model development.

### 4) Bibliography

There is no bibliography in the Plan. This is unfortunate since a wealth of background material was used to develop the Four Corners Plan. A standard bibliography therefore would be a valuable addition to the Plan.

## SUBSTANTIVE

### 1) Econometric Model

The econometric model and macro approach relied upon in this version of the Four Corners Plan appears too mechanistic, particularly in conjunction with the Gross Regional Product concept and its wide range of probable inaccuracies. While marginally useful as an academic exercise, the econometric approach (in view of the inherently weak data base) does little justice to the real world problems in the Region (the Region's vast area and sparse population). It is difficult to imagine an econometric model adequately handling the wide range of variables and the unique social and economic characteristics of the minorities (e.g., Indians, Spanish Surname). This is particularly true, since the minority populations do not comprise vast aggregations. Rather, because of the sparse growth nodes scattered throughout this vast region, a more direct and detailed analysis on a subregional basis is necessary.

### 2) Regional Manpower and Employment Trends

Unemployment, underemployment and the need for job creation represent perhaps the most important overall problems requiring attention within any economically depressed area. The Four Corners is no exception. Rather, it is a more extreme case in point, since on some Indian reservations it is estimated that more than 50 percent of the male working age population is chronically unemployed. It is therefore useful to give special attention to the data pertaining to past, current and future employment trends focusing on these major subregional problem areas. At first glance, the Four Corners report suggests a credible effort in this area with many pages of statistics devoted to employment figures as derived from the respective State Employment Security centers.

Total labor force statistics, however, are absent from the report and only the most general information pertaining to unemployment rates are apparent in the document. It is therefore difficult to compare or verify

gains (or declines) in employment meaningful in terms of reduced (or increased) unemployment within the Region. With respect to the actual figures used in the Plan, this is particularly puzzling when viewed from the perspective of an apparently strong employment upswing in the Region during the 1967-1970 period. Were regional labor force, employment, unemployment and other relevant elements (e. g. , military) of the total labor force charted and analyzed in consistent fashion it would be possible to comprehend these important variations.

To illustrate the unanswered questions raised by the employment data as presented in the Four Corners Plan, it is only necessary to examine the employment time series 1967-1970 in its own context, and further compare these with other manpower studies pertaining to the Region (for the same time period). The following tabulation provides an example of this kind:

Total Civilian Employment in the Four Corners Region: 1967-1970

	<u>4-Corners Data</u>			<u>Marr Survey</u> <sup>1/</sup>		
	<u>1967</u>	<u>1970</u>	<u>% Change 1967-70</u>	<u>1967</u>	<u>Projected 1970</u>	<u>% Change 1967-70</u>
Arizona	82,526	100,275	21.5	78,600	79,900	1.6
Colorado	230,662	257,300	11.5	201,700	202,000	0.15
New Mexico	227,935	244,993	7.5	222,100	229,500	3.3
Utah	85,172	91,650	7.6	82,500	84,400	2.3
Total Regional Employment	626,295	694,218	10.8	584,900	595,800	1.9

As presented in the above tabulation, the Four Corners data (on the left) was reproduced from Tables IV-13, IV-19, IV-25, and IV-31 of the Plan. The Marr's survey is shown for comparative purposes.<sup>1/</sup> The difference in absolute number between the Four Corners Plan employment totals and the Marr survey is startling. This difference between the two data sources

<sup>1/</sup> Marr, Eldon G., Population and Employment in the Four-Corners Development Region (Four Corners Regional Commission Project), Bureau of Business Research, University of New Mexico, Albuquerque, N.M., August 1968.

represents a divergency of nearly 100,000 employables for the Region's 1970 employment totals. Even with sole reliance upon the Four Corners employment time series (i.e., setting aside the Marr survey as obsolete), an upward shift of 10.8 percent for the three year period (1967-70) would suggest a high growth situation for the Region during the most recent past. As shown in the above tabulation, even more striking are the individual regional portions of Arizona and Colorado exhibiting an employment increase of 21.5 percent and 11.5 percent respectively for the three year period. Should this trend continue for just a few more years, it is obvious that the "Job Gap" would vanish on its own accord (and/or substantial in-migration would take place without additional development measures necessary beyond those economic forces already at work within the Region).

Further examples pertaining to the manpower problem may be cited: Spot employment surveys conducted by OBE, suggest that in the Navajo area (Navajo, Apache, San Juan and McKinley counties), though there were shifts in the distribution of industrial sector employment mix, the overall employment totals in those counties between 1965 and 1970 remained about 12,000. This would indicate an essentially static or stagnating employment situation.

Essentially the same appears to hold true for Spanish-American employment in a 19-county area<sup>1/</sup> of the Region where there is a high percentile of Spanish-Americans (totaling 48% of the population in that subregion).

Further to the above, OBE data indicates that 10,700 Social Security covered employees (from a 36,000 total) departed from the above 19-county area and obtained employment elsewhere between 1965 and 1970. During the same period a much smaller number (900) migrated into this 19-county subregion, with a resulting net outmigration of approximately 10,000 employables. This would indicate that perhaps 30,000 people left the 19-county subregion. Admittedly, about one-half of these migrants from this subregion located elsewhere within the Four Corners Region, yet the fact remains that those migrating outside the Region (ca. 15,000) still represent a significant fraction of the total.

<u>1/</u>	<u>Arizona</u>	<u>New Mexico</u>		<u>Colorado</u>
1.	Gila	1. Colfax	7. San Miguel	1. Conejos
2.	Greenlee	2. Grant	8. Santa Fe	2. Costilla
		3. Guadalupe	9. Socorro	3. Huerfano
		4. Mora	10. Taos	4. Las Animas
		5. Rio Arriba	11. Torrance	5. Otero
		6. Sandoval		6. Rio Grande

The question then arises: Who were the beneficiaries of the steep employment rise as implied by the 1967-70 employment data presented in the 4-Corners Plan?

The aforementioned problem is not highlighted merely to pinpoint questionable employment data. Rather, it is shown to direct more analytical effort toward critical basic data upon which is built the entire Four Corners job gap and regional investment program for the 1970s.

## POLICY

### 1) Subregionalization

Aside from certain modest projects earmarked for the Indian and Spanish-American population, geographic specificity, i.e., a growth center or systematic subregional approach to the Four Corners is largely absent in the Plan. Again because of the severe discontinuities (both ethnic and geographic -- more pronounced in the Four Corners than elsewhere), a growth area approach might be more strongly emphasized within the Four Corners Region. Added effort in terms of individual surveys might shed new light on the more problematic areas, and therefore minimize the weaknesses of less meaningful aggregates and regional averages. In this process, major constraints inhibiting economic development in the sub-areas where most needed, would reveal themselves.

### 2) Priorities

Few if any meaningful alternatives for action are offered in the Plan. In similar context, the setting of priorities in the implementation of the Four Corners Plan is not clear. In this respect, special sectoral studies and geographically oriented surveys would appear to give more promise for successful program implementation.

In brief, the Plan in its present form does not adequately close the linkages between the overall goal (eliminating the Job Gap) and the individual implementation process required to achieve this objective.



**U.S. DEPARTMENT OF COMMERCE**  
**Office of the Secretary**  
Washington, D.C. 20230

November 30, 1971

MEMORANDUM FOR Robert E. Ruddy

From: Alexander N. Christakis *AK*

Subject: Review of Four Corners Regional Commission Development Plan

The Four Corners Regional Commission Development Plan represents a commendable effort to understand, explain, and extrapolate by means of an econometric model, the problematic situation of the Region. The report is very strong (and actually very long) on problem and goal identification, and very weak on the invention of alternative strategies for goal achievement. It fails to conceptualize and communicate to the reader alternative strategies designed to identify and eliminate those barriers which prevent the Region from attaining economic parity with the rest of the Nation.

The study is very illuminating in measuring through a regional econometric model the magnitude of the "problem continuum" facing the Region in terms of (1) the job gap, (2) the income gap, and (3) the amount of capital investment that will be required for reducing the job gap by 1980. The Commission has chosen as its objectives an annual income growth rate of 5.0 percent for the eight-year period, FY 1973 through FY 1980. By 1980 this growth rate implies:

1. The creation of 75,000 jobs above the expected growth rate so that total employment in the Region would be approximately one million.
2. The raising of the per capita income to \$3,515 in 1958 dollars, and thereby decreasing the income gap to \$760.
3. A Federal government investment in the region of \$1.1 billion (1970 dollars) and an increase of state and local government expenditures by \$250 to \$300 million.

In Chapter VI the proposed economic development plan outlines the programs and projects designed to guide the allocation of \$500 million in Federal funds for the period FY 1973 to FY 1976. This is done through the identification of specific public investment programs including their location and cost. However, this reviewer did not find in the report a "concept-plan" guiding the allocation of limited Federal and State resources among alternative program-project categories, e.g., highway construction, health, recreation and tourism, and the like. This, in my opinion, is the major shortcoming of the report; namely, by overemphasizing the discussion of the econometric model, it fails to communicate a strategy capable of alleviating the unique disadvantages characterizing the Region.



The disadvantages of the Region appear to be (1) the physical conditions of vast space, rugged terrain, and low rainfall and soil fertility, (2) a low population density generally through the Region, (3) conditions where a large portion of the rural population consists of Indians and Spanish surname persons with low levels of education, occupational skills, income and employment, and (4) an economy with few internal connections and linkages to the larger national industrial economy existing mostly through the several metropolitan areas located on the periphery of the Region. To overcome these impediments to economic growth the Commission adopts as its major strategy (1) the construction of highways to improve the accessibility to the population, to existing and potential industries, and to mineral and other natural resources and (2) projects designed to improve the skill level and quality of the labor force. The proposed strategy for development does not appear to recognize the significant role that economies of scale and agglomeration might play in overcoming regional disadvantages. An examination of the merits of creating a new major urban concentration at the geographic center of the Region capable of structurally changing the prevailing space-economy would be a more responsive strategy. Strict adherence to econometric modeling, however, cannot provide a guide to regional planning, i. e., it cannot tell us where regional concentrations of people and industry should take place.

A good starting point towards the development of a regional strategy would have been a careful examination of the Battelle industrial potential study. The purpose of this study was to determine which industries were most suitable for establishing firms in the Region and various subregions. The Commission recognizes that the only way to narrow the Region's income gap is through a structural break in the economic growth path. Desirable (and feasible) industrial development can, in principle, produce that structural break. Unfortunately the report makes little use of the Battelle analysis in the sense that it does not address itself to the basic developmental planning question, namely: What constraints must be eliminated so that the desirable industries might be attracted to the Region?

The feasibility analysis carried out by means of the Regional Industrial Allocation (RIA) model does not answer the above basic question. The RIA model takes into account four main factors, namely: (1) market, (2) suppliers, (3) transportation, and (4) labor force. It tries to match a location's resources with specific industry requirements. Unfortunately, it appears that the economic feasibility analysis is conducted taking into account the "present data base," i. e., the presently observable values of the four main factors entering the industrial locational decision assessment. Here again, a "concept plan" like the establishment of a major urban center in the Region, could drastically change the results of the economic feasibility analysis by attempting to take into account a "future data base." Such a data base, for example, would include alternative regional population concentrations, technological innovations applicable to regional resources, changes in consumption patterns, and the like.



Finally, it appears that the authors of the report have overestimated the utility of econometric modeling for planning purposes. In fact, an econometric model should not be construed as a "planning model," as it is stated on page VI-4, but more as a forecasting model. It is useful in providing a descriptive economic scenario based on past and present trends. Perhaps as a general proposition, the relevance of the past for planning purposes is inversely related to the speed of social and technological change. Furthermore, the econometric model equations were developed for a notoriously "open system," with incomplete information, and (by necessity) with weak empirical links to other subsystems.

The criticism of the usefulness of econometric modeling for meaningful planning is borne out by the fact that in Chapter VI, dealing with the "Proposed Economic Development Program," the econometric model is marginally useful for the selection of programs and projects. This selection is primarily based on sectoral studies such as the Development Research Associates recommendation of 39 private sector projects requiring \$104 million in investment. A viable "planning model" would have been capable to integrate systematically the sectoral studies input into a regional plan for action. The econometric model cannot serve these integrating requirements. For example, the results of the Battelle analysis based on the Regional Industrial Allocation model cannot be incorporated into the econometric model.

#### Conclusion:

The Four Corners Regional Commission plan represents an attempt to analyze the barriers and potentials for the development of the Region. There is a lot of relevant and useful information on regional demographic and socio-economic indicators, such as age-sex composition of the population, minority group analysis, and the like. The Commission has performed some very interesting studies, such as the identification of feasible and desirable growth industries for the Region by subregion. Unfortunately, the report overemphasizes the regional econometric model as a planning tool that can guide the meaningful allocation of resources towards the achievement of Commission goals. This approach to planning fails to recognize the role of creative judgment, imagination, careful analysis, and effective communication in the social and economic development process.

EVALUATION OF FOUR CORNERS  
REGIONAL COMMISSION DEVELOPMENT PLAN

PURPOSE

The purpose of this report is to provide evaluative comments to the Department of Commerce on the Four Corners Regional Commission Development Plan, dated October 1, 1971. It is anticipated that the Departmental staff will consider these comments along with those of other contractors and federal employees in order to develop its positions regarding the acceptability of the plan and the desirability of funding the actions recommended in the plan. This work was performed by Battelle pursuant to Department of Commerce purchase order 1-23596 dated June 30, 1971.

EVALUATION CRITERIA

In earlier work, Battelle has evolved some criteria for evaluating the processes of planning and the plans resulting from such processes.\* These criteria stem from a general orientation toward planning processes that reflect the principles normally associated with successful planning and with systematic analyses of governmental programs through such modes as the planning-programming-budgeting system. This

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\* D. Schiffel, et al, Final Report on Evaluation of Economic Development Administration Planning Grants (May, 1970), Chapter 5. D. Hill, J. Warfield, et al, A Unified Systems Engineering Approach to Social Planning, in-house study 1969-1971.

paper utilizes these criteria as well as criteria of conformity to guidelines for planning issued by the Department of Commerce for the regional commissions.\* Since the primary reviewer of this plan is an economist with background in the analysis of public programs, the reader should be aware that particular biases could result from that background.

#### OVERVIEW OF THE REVIEW

This review begins by abstracting the goals and strategy of the Four Corners Regional Commission Development Plan. Then, note is taken of significant features found in the plan and improvements over the previous submission. Next, specific criticisms of the plan are expressed. Finally the relationship of the plan to the required guidelines is assessed.

#### SUMMARY OF GOALS AND STRATEGY

The primary goal of the Commission is apparently to reduce the job gap by 1980. Based on the Commission's analysis this will require the creation of 75,000 new jobs and an annual growth rate for the Four Corners economy of 5 percent between fiscal year 1973 and fiscal year 1980. The alternative goal of closing the per capita income gap between the region and the U.S. average was also examined. However, the Commission felt closing the income gap would require such extensive

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\* These guidelines are given in the Federal Register of July 14, 1967, Vol. 32, No. 135.

investments that it would be an unreasonable goal, quite unlikely to be attained. The Commission does indicate a secondary goal of an income gap of no more than \$760 by 1980.

The major strategy of the Commission to implement this job gap closure goal is (1) the construction of highways to improve transport in the area and (2) projects designed to improve the skill level and quality of the labor force. Secondary strategy includes public investments to stimulate and foster industrial development, recreation and tourism, mining and agriculture.

The Commission has established a policy to orient a large segment of its effort to the most economical deprived groups, which consist primarily of Indians and Spanish surname individuals living in rural areas. In addition the Commission apparently embraces the idea of concentrating first on rural areas with urban support being supplied "where projects are warranted and resources permit". While not specific the orientation is nonetheless clear. This reviewer finds the goals and policies reasonable, but would prefer some additional analysis of strategy alternatives. For example, an examination of the merits of urban versus rural investments and highway investments versus industrial development investments.

#### NOTEWORTHY ASPECTS AND IMPROVEMENTS

There are a number of noteworthy aspects of the Four Corners plan that can be identified. Following an identification of such features some of the improvements over the previously submitted commission plan will also be identified.

The noteworthy aspects of the Four Corners plan include:

1. A separate descriptive analysis of the economies and resources of each of the four state areas comprising the Four Corners region. These separate analyses are then aggregated into the Four Corners region total. Unfortunately, this analysis suggests that the Four Corners is not a region at all; the four state area does not share a common economy, only a more or less common set of problems. Examining the four state areas separately should provide useful information to state planners and facilitate a better understanding of the subregional problems.
2. The use of an econometric model to link the economic sectors of the economies of the separate state areas in the Four Corners region is commendable. However, the model is not used, apparently, to analyze linkages between the states, i.e., regional economic structure. Despite substantial and serious reservations about the model used, the concept is excellent.
3. The plan utilizes the numerous research studies carried out under the auspices of the commission. The inclusion of these studies in the plan demonstrates that the commission has carried out

a useful research program oriented to the solution and not just the study of state/regional problems. How well these research studies are integrated is not clear in the plan, but they do not appear to be in serious conflict.

4. As a general assessment the current Four Corners Regional Commission Development Plan represents an excellent second phase of a comprehensive development plan. While a comprehensive development plan can never be "completed", the Four Corners Regional Commission has demonstrated progress in planning.

The following improvements between the previous preliminary plan and the current submission can be noted:

1. An improved analysis of the situation of minority groups.
2. Improvement in the analysis of the age-sex composition of the population.
3. An explicit focus on minority groups' needs.
4. An identification of specific public investment programs including their location and cost.
5. An improved analysis of subregions.
6. An improvement in the conceptual method of analysis, even though not in the analysis, per se, of the economic structure of the region.

7. An improvement in the conceptual approach to projections of economic activity, even though not in the actual projections per se.
8. An identification of feasible and desirable growth industries for the region by subregion.

#### MAJOR WEAKNESSES

This reviewer noted two problems of an analytical nature immediately. The following discussion is not a criticism of the plan per se or of the strategy of constructing the plan. However, these criticisms if valid can cast serious question on the validity of assessments upon which the plan and activities reflected in it are based.

The first of the analytical shortfalls is the treatment of migration. The plan presents several alternative economic futures which are based upon substantial migration within the region. It is probably unrealistic to assume that such massive movements will take place within the region. Moreover, immigration to the region from the rest of the U.S. is apparently assumed away. Yet it is quite commonly accepted that increasing economic activity will result in increased immigration.\* Migration within the region and into the region needs to be reanalyzed.

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\* See for example, Ira S. Lowry, Migration and Metropolitan Growth: Two Analytical Models, Chandler Publishing Company, 1966; Eva Muller, Nancy Barth and William Ladd, Migration Into and Out of Depressed Areas, U.S. Department of Commerce, Area Redevelopment Administration, September, 1964; and, Warren Mazek, The Efficacy of Labor Migration With Special Emphasis on Depressed Areas, unpublished Ph.D. dissertation, University of Pittsburgh, 1966.



The second major analytical shortcoming, as perceived by this reviewer, is much the more damaging. This shortcoming is the econometric model used. Although the plan indicates the model is misspecified and based on a very limited number of observations, the model nevertheless is the "heart" of the economic analysis and projections.

The model suffers from the following problems:

1. The regression equations are not consistent in the independent variables from state to state and do not seem to be centered around cause and effect relationships. This implies that processes are not adequately examined by this model and that in conjunction with the specification error the model cannot indicate "what effects what". The model appears to be based on associations among variables such that those variables providing the highest  $R^2$  (coefficient of determination) are utilized rather than variables reflecting cause-effect relationships. Such a search for high  $R^2$  reveals little about the basic interrelationships of the economy.
2. The reliability of the parameter estimates is dubious despite the high t-values of the coefficients. The number of observations is too small for statistical reliability. Much of the statistical content of the model as presented

can be assumed to come from the tendency of all economic indicators to move together through time, i.e., any set of economic variables whether related in cause-effect manner or not will show correlation through time.

3. The basic model consists of three general types of relationships for ten sectors. Those relationships are:

$\text{Gross Product} = f(\text{independent variable})$

$\text{Earnings} = f(\text{gross product})$

$\text{Employment} = f(\text{gross product}).$

Page IV-2 states that: "The gross product data were generated from the earnings series. Annual gross product to earnings ratios for the nation were used to construct the gross product series for each sector". If our interpretation of this statement is correct, it appears that the model suffers serious circularity problems.

4. Lumping all manufacturing together into one sector would seem to conceal as much as it reveals about the Four Corners regions of the four states economic structures.
5. The model was not used to identify intraregional interstate economic structure. Or perhaps it was and no structural relationships were found to exist among the states.

6. Except in mining and services there appear to be very few regional specific relationships.

Having made these criticisms, note must be taken of several facts. One, the plan has obviously tried to link the regional or at least state areas economy to the national economy. Second, to the degree that the industrial screening model analyzes industrial structure, the econometric model need not. The question then is whether or not the industrial screening model analyses were incorporated in the analysis of the economy(ies) and projections. It appears not to be the case. Third, the state-of-the-art for practical analysis of regional economies is not far advanced.

In a review of the Four Corners Commission's previous plan, it was suggested that the Commission's information gap consisted of:

1. The Commission does not know the industries which will contribute most to long-term growth or how to attract such industries.
2. The Commission does not have possible solutions to the problems of production cost and technological change faced by mineral and farm producers.
3. The Commission does not have specific development facility recommendations for expansion of tourism and recreation.
4. The Commission does not know the location and cost of public facilities needed to produce the

rate of economic growth projected as one of the Commissions goals.

It appears that considerable progress has been made with respect to all the items except number two. Unfortunately while progress has been made in closing the information gap (which incidentally was claimed as a strategy in the previous Four Corners Regional Commission Development Plan) new gaps always arise.

It now appears that the Commission's information gap includes:

1. Lack of knowledge about the economic linkages between and among the four state regions comprising the Four Corners. Indeed, the current plan implies that such linkages do not exist. This raises the embarrassing question of the legitimacy of a regional commission for the area.
2. The Commission has only a vague idea of how industry will be attracted to the region, the interface and the cause-effect relationships between public and private investment in the region; and, how these in turn affect economic growth.

The Commission may never solve such information problems but they certainly should be addressed in the next phase of the planning process.

The plan suffers from a technical failure to supply linkages among and between the description of the region's resources and problems,

the analysis of the region's potential, projections of alternative futures for the region, strategy alternatives and the suggested projects in the action program. Nonetheless, it appears to this reviewer that there is a clear relationship between area problems and the Commission's selected action projects. Again, the state-of-the-art of practical regional economic analysis is probably not sufficiently advanced to allow definitive linkages to be found.

At places in the plan it is difficult to understand exactly what is meant. For example, on page IV-66 the plan indicates the "major driving forces" in the Colorado Four Corners area economy have been manufacturing and government followed by mining and agriculture. Yet Table IV-20 shows employment in mining and agriculture falling and Table IV-19 shows the share of real earnings falling in each sector. Moreover, from 1959 to 1970 manufacturing's real share of earnings has not changed much. A question of interpretation is implied, namely, what is the criteria for determining a driving force? Is it employment? Gross product? Real earnings? In the same vein, on page IV-75 the statement is made that: "The mining sector is a basic sector in the economy of Colorado in the sense that it drives other sectors in Colorado". Yet if one looks at the "econometric model", in the appendix, mining variables do not enter other equations as independent or causative variables.

Again on page IV-142 the statement is made that "...although mining's share of regional gross product is five times mining's share in the nation, few links exist between the mining sector and the other

sectors in the regions economy". . . . . "Consequently, mining's direct and indirect influence on aggregate earnings and employment is relatively small". But mining was previously said to be a "major driving force" in the economies of the Four Corners regions of Arizona (page IV-40) and Utah (page IV-116) and to some extent in Colorado. Unless New Mexico completely dominates the region the statements appear to be inconsistent. Even if such dominance by New Mexico occurred it is not reflected through any state to state linkages.

A general criticism of the plan is that it lacks sufficient graphical or visual materials and that it fails to adequately highlight important findings, plans, strategy and programs. This is absolutely essential in a document exceeding 550 pages in length. In fact it would be useful if a separate volume were constructed drawing out issues, the priority items of the Commission and a schematic representation of how the descriptive analyses, economic analyses and projections are interrelated and how the material has been used to formulate strategy and programs. This would also be useful in enticing leaders in the Four Corners region to read at least parts of the plan as well as to serve as a check on how well the plan "hangs together".

The project descriptions by category, e.g., highway construction, health recreation and tourism, give no indication of priorities, either within categories, e.g., highway construction, or between categories, e.g., health projects priorities as compared to recreation and tourism priorities. Another missing element is some

indication of quantification of expected benefits from the various projects or at least some indication of what criteria will be applied to determine the effectiveness (success) of the individual projects and categories of projects. Simply saying that a highway will open up vast new recreation and tourism areas does not mean tourists will come. Further, if they do come, how much will the economy benefit?

The DRA recommendation of 39 private sector projects requiring \$104 million in investment which will lead to 4300 direct and indirect jobs yielding total employment income of \$17.3 million represents the kind of statements needed.

Another question which arises is how the project activities in the plan reflect the underlying analyses. For example, there appears to be no analysis suggesting that deficient transportation is the prime cause for the economic slack in the area. Yet highway projects are a primary and high expense program. This may reflect a pragmatic attitude that the funds are available so why not use them? On the other hand, it appears that many of the anticipated projects are a direct reflection of the analysis of problems in the region. For example, vocational education and skill upgrading programs on Indian reservations and in Spanish speaking areas.

#### EVALUATION WITH RESPECT TO FEDERAL GUIDELINES

The following comments are structured around specific planning requirements expressed in the Federal Register of July 14, 1967. Many



of the comments reflect earlier statements and are concise to minimize redundancy.

1. "The regional plan should include a review of prior studies concerning the region's economy, together with an indication of the relevance of such studies to the region's current problems." As noted earlier, the current plan appears to utilize a great number of research studies sponsored by the Commission. Many of these studies provided specific project definitions for the solution of the regions problems. The criterion, thus, appears to be met.
2. "The regional plan should include an estimate of the gaps in research and data needed to conduct effective development planning." The plan alludes to various information gaps and expressly mentions the paucity of data available for constructing the "econometric model". In general the plan evidences a framework for analysis which is conceptually sound. Unfortunately data with which to implement the analysis are incomplete and sometimes of dubious quality. In general, the criterion is weakly met.
3. "The regional plan should include projections of population and labor force and employment by key industrial sectors, and an inventory of natural resources. It should identify the major growth centers within the region which are capable of long-term growth." In general the plan covers all these items, although labor force is handled implicitly through the employment participation rate. However, severe doubts exist about the quality of the economic projection model, about the quality of the migration estimates and about the adequacy of the ten industrial sectors used.
4. "The regional plan should include a review of the major factors which have caused the region to lag behind the Nation as a whole in economic development." The current plan provides such a review.
5. "The regional plan should include a review of public and available private plans for capital expansion and investment, and should relate these other public and private plans to the commission's regional plan." There appears to be

no extensive review of the relevant state plans or private plans. This part of the plan needs to be strengthened.

6. "The regional plan should include an explicit statement of the region's economic goals, such as reducing unemployment, raising personal income, raising education levels, and so forth." The primary goal of the Commission is to create 75,000 new jobs in order to close the job gap. A secondary goal is to partly close the per capita income gap.<sup>1</sup> However, the plan needs to be strengthened by the addition of specific quantified subgoals, which are clearly related to the primary goal. The criterion is met at the gross level but not at the micro level.
7. "The regional plan should set forth an explicit strategy for achieving the region's specified development goals. This strategy should include an analysis of the extent to which public investment should be concentrated or dispersed, and what kinds of public investments are the most critical for achieving a higher rate of economic growth." In general the abstract or general strategy is stated and the detailed investments indicated. However, the relationship between the general strategy and the detailed investments is not clear. More correctly, the relationship of detailed investments to ultimate goals is not clear. Further, the question of concentration versus dispersion of public investments is not adequately addressed.
8. "The regional plan should include a review and analysis of the extent to which existing Federal, State and local programs are adequate to support the commission's goals and strategies. It should identify the major gaps, modifications, or supplements to existing programs which will help carry out the commission's development strategy." The plan identifies the magnitude of additional public investments required from particular Federal agencies and from State and local sources. The analysis of current Federal and State investment flows in the Four Corners Regions could be strengthened, however, by a clearer indication of their infrastructure impact.

9. "The regional plan should include an analysis of the classes of projects which are consistent with the commission's goals and programs and an identification on a regionwide basis of the locations and types of projects necessary to carry out the regional plan for economic development." While the plan does this, it provides little information on how these projects were evaluated for selection purposes and how they will be evaluated once implemented.

#### SUMMARY

In summary, while we find certain deficiencies in the Four Corners Regional Commission Development Plan, the plan presents enough basic information and preliminary analysis and a selected list of projects so that a rationale for preliminary federal investments is visible. Therefore, federal funding appears warranted while further planning takes place. Such funding should be preceded, however, by assignment of priorities to the projects listed in Chapter VI.

## INTRODUCTION

This version of the Four Corners Development Plan is impressive on a number of counts: for what it seeks to do, for what it very often does, for what it sometimes fails to do when trying, and for what it occasionally neglects to do. In the litany of planning, no plan is ever final, nor does any plan document ever fully express the endless process of planning. This Plan is no exception. In some particulars, it is visibly incomplete. Yet, it also necessarily reflects the constant movement and dynamism that vigorous and involved regional development planning always exhibits. Like the region from which it springs, the draft is adventuresome, coarse, appealing, flimsy, engaging, direct, realistic. It is big, wide, expansive. It emulates sophistication while, at the same time knowing in its heart that there's too much to be done and too little time to permit too much fanciness. It sometimes stumbles over itself and ends up putting things in the wrong places. Nonetheless, it rarely swerves from its objective of setting down in the most specific and concrete manner the programs and projects deemed most fitting to the declared goals and consonant with an explicit analytical foundation. To do this takes more courage and effort than most will realize--unless they themselves have in fact shouldered the operational responsibility of preparing a plan.

On the most general perspective, we believe the Four Corners Plan should be given a passing grade substantially above the average. Almost all of the standard

requirements are met. The main deficiencies in the document have to do with exposition, a number of substantive omissions, and a few technical errors and obscurities. We shall examine each of these in turn.

## PLAN EXPOSITION

We know that comprehensive planning documents of the Title V Regional Commissions are rarely intended as exciting and interesting reading material. This plan is no exception. But, as one proceeds through a myriad of numbers on growth, "rates of change" in the economic variables for each state, each regional part of a state, each sub-region, and for the region as a whole, it is often hard to single out and concentrate on the points being made.

To illustrate, there is a severe problem in the region of a widely scattered and sparse population. But the "overkill" achieved in the analysis of the demographic characteristics, migration, and educational attainment at all the various regional and sub-regional levels makes it difficult to single out this main point, and its implications for development.

Every chapter of the plan is flooded with detail and cumbersome tables that are not easy to follow, albeit, we recognize that criticism would arise if this quantitative data were not included. Hopefully, the data can be further grouped and condensed.

As regional plans go, the Four Corners document probably wins some sort of award for sheer size. It is 570 pages long, including Appendices and Tables.

As a first suggestion, therefore, we believe the utility of the document would be increased if it were split into two volumes. Volume I could consist of the Present Chapter 1, "Introduction" and Chapter II, "Summary of Findings and Recommendations." Volume II could carry the remainder of the Draft. Volume I might need some small expansion to clarify or reference individual technical or substantive points. But the essentials are generally all there in Chapter II. To make sure everybody understands what's going on, a standard note at the front of each volume should explain that the Plan consists of two separately bound companion volumes, briefly mentioning what's in the other volume.

For the most part the expository style is uniformly good throughout the document. Except for a few passages of unclear or obscure meaning, the individual chapters, sections, and paragraphs are well-expressed in an orderly sequence and the flow of thought is good. Obvious typographical errors will, of course, be caught in subsequent editing. As a minor suggestion, the summary of proposed public investment program by sector in Chapter VI (pp. VI-106-108) might effectively be placed at the front of the Chapter in order to provide overall perspectives. After that, the succeeding detailed section discussions of functional programs and projects could then proceed as drafted. This sequence would, we believe, conform to the one used in most of the preceding chapters, i. e., an overall regional perspective, after which the discussion descends to lower levels of geographic detail.

## SUBSTANTIVE CONTENT

The current document contains most of the elements we judge necessary to meet the requirements of a comprehensive regional development plan:

- The inventory and review of the region's human resources and natural resources is complete beyond expected efforts.
- The accompanying analysis of demography, migrational trends, and educational attainment is informative and thorough.
- Constraints, problems and potentials of the region are identified and carried forward to be integrated into the regional goals, strategy, and development programs.
- Projections of trends in employment, income, and output are presented in a manner useful for analysis.
- The job and income gap measures and analysis are extended to sub-regional levels, and will help to identify areas of problems and potential development.
- The regional goal is based on the analysis of the foregoing factors; it is realistic and simply stated.
- Sub-objectives comprise one base for development programs which, in turn, specify the regional development strategy.

- Sets of specific projects are identified and recommended and their component costs are given under each major program.
- Interagency cooperation is implied and in many cases achieved; that is, projects are all associated with the activities of various federal and state agencies, and are over and above their current plans and budgets.
- A general time frame for programs is proposed.

Against this list of inclusions, the current plan falls short of satisfying the following requirements:

- Capital structure and regional labor productivity are not measured and analyzed,
- Current infrastructure and public expenditures are not measured for use in the analysis,
- Projections are based on a sparse number of past observations with no consideration or adjustment for future influential factors.
- Methodology and analysis needed to determine the benefit impacts of programs and projects are not developed or applied to justify proffered program costs (with the exception of the tourism and recreation program). Hence, no comparative evaluations of competing programs are made.
- Following from the above, no explicit treatment is given to program priorities. In consequence, one is left with the implicit priorities given in the proposed "set" of programs and projects in which, by way of example, transportation gets almost half the proposed public investment for FY 1973-76, while industrial development gets around one fortieth. More justification is needed for relationships such as this.
- Time sequencing of programs and projects is not addressed. Hence, program impacts cannot be aggregated in order to align them with targeted gap closure time-phased objectives.
- No explicit growth center strategy is presented.

It is evident that many of the above shortcomings are less omissions than insufficient or inadequate treatment in the current draft. With the possible exception of benefit impacts, most of the evidence appears to be generally in



hand and available for the necessary analysis, given sufficient time. In other words, we anticipate that continued re-work and refinement based on existing achievements in data assembly and analysis will go far to fill these gaps.

#### TECHNICAL QUERIES

For ease of identification, detailed comments here will be taken chapter-by-chapter.

##### Chapter I, "Introduction"

This is an effective introduction to the Plan and its purposes and should serve well both the professional and non-technical readers. On page I-5 (middle paragraph), however, the expression "projections of job and income gaps" appears for the first time. A stranger will have no idea what these gaps mean. A brief, non-technical explanation or example is probably warranted.

In a similar way, on p. I-7, a discussion of the difficulties of the limited data problem and its impact on dependent/independent variable relationships appears somewhat out of place this early in the document. We're not objecting to proper and necessary qualification of analytical work. But the explanation and assessment of the difficulty posed here fail to help the reader understand just how serious the matter is.

##### Chapter II, "Summary of Findings and Recommendations"

A number of queries here naturally will apply to the detailed chapters following from which the summary was compiled. However, because of the general importance of this Summary, we think it essential that the items be clarified at this point.

Poverty due to low incomes and unemployment reinforced by the lack of education and skills among a large segment of the Indians and Spanish descendents is a major point of the plan's text on problems, but the underlying sociological causes are not explored--that is, the symptoms are vividly revealed but the cultural and social problems that influence the economic plight and the values of these people are not discussed.

In other respects, the potentials and problems of the region are fairly well defined. The economic structure and its strongest sectors are identified, and this is one way in which the strengths and weaknesses of the region are explored. Among the problems, the relatively low productivity of many regional workers is mentioned but not measured. On p. II-5, the expression "gross output" is used for the first time. The term is not defined. To many, it will connote something like the GNP, which is formally defined as the total national output of goods and services valued at market prices. This is not the definition of "gross output" in this document, however. The first formal definition is found much later (in Chapter IV, in a footnote on p. IV-3) and is offered as: "gross product by sector is the value added to production by sector, and should not be confused with the value of total sales by sector." We think that much confusion is likely to ensue unless more frequent and intensive reminders of the meaning of "gross output" are used throughout the entire document. To many, gross output is represented by total sales. A simpler solution, to our mind, however, is to use the expression "value added," supported by an occasional amplification or two that explains its relevance to the Commission planning and developmental goals.

On p. II-10, the econometric model is described as a system of "recursive equations." In a summary chapter such as this "recursive" won't have much meaning to an executive reader, politician, and legislator. Beyond that, mathematically, "recursion" means the derivation of values or factors from other elements or factors that precede them. Hence, the usage is not only one of linkage (which is the principal stress in this draft), but also one of precedence or sequence. We think this characteristic should be clarified.

On the same page (p. II-10 and accompanying Table II-2), we suggest that a brief explanation be given of the growth assumptions, not just the projected annual growth rates. Even in a summary like this one needs to know whether the sector projections are projected independently, or whether there is some assumed growth relationships among the whole sector set.

P. II-13, second paragraph projects a number of sectors as "leading growth sectors" but no explanation accompanies the assertion.

On p. II-15, the term "real" (here applied to earnings) appears. (See also p. II-21.) Along with its application to output and income, it is used throughout the document. The Tables that accompany these discussions carefully make the point that the quantities are "constant 1958 dollars." As we all know, expressing things today in terms of 1958 dollars does not make them "real," although our theoretical intention in doing so was to eliminate price effects. We know the necessity of using constant dollar figures, viz. to acquire a time series long enough to furnish data for the model. But constant dollar estimates (which often have to be reinflated for current use anyway) are only "real" in a very distorted and unusual sense. Our recommendation is to replace the term by "1958 dollars," or "1970 dollars," or whatever index base is being used.

Page II-25 first introduces "incremental capital-output ratios (ICOR's)." A brief explanation for the lay reader, just a sentence or so, is probably needed. On the same page, the phrase "public share of investment is in the neighborhood of 40 percent" appears. Some explanation for this is required, we think. Nationwide, public capital investments typically run around 25 percent of total investments. This well-known ratio is sure to invite comments about the 40 percent figure offered here. Finally, on the same page, the expression appears "If additional public investment were forthcoming and combined with the appropriate amount of private investment..." What is the "appropriate amount of private investment" and how did it become "appropriate?" In general, very little is said about the private investment levels, but they are substantial.

On pp. II-30 and II-31, the general strategy is summarized. Transportation receives primary stress as a means of overcoming much of the isolation that characterizes the Region. Concentration of programs and projects in behalf of Indian and Spanish surname minorities is also to be undertaken. These intentions imply, but do not explicitly generate, some kind of urbanization or growth center

strategy. We think that more careful attention to this critical issue in developmental planning is needed. Creating new jobs does not necessarily mean greater urbanization, but economic growth generally reflects the economics and advantages present in urban centers.

### Chapter III, Economic Resources

This chapter presents an excellent inventory of the region's human and natural resources. Extensive analysis of population characteristics and trends is given at region, state, regional portion, SMSA/non-SMSA portions, counties, and other demographic breakdowns. The same is true generally for employment and income. Growth trends and levels of population, births, deaths, and fertility rates are given, along with ethnic composition and migration. These statistics are detailed and thorough at almost all necessary geographic levels. Employment and income are also analyzed extensively, including the significant employment participation rates and skill classifications. In addition, much effort has been expended in inventoring natural resource reserves and outputs. Their values and potentials are probably more completely identified in this plan than in any others extant. In general, the document probably contains the best and most extensive data base that has ever been assembled for the region with regard to demography and human and natural resources.

Our only criticism is levelled at the omission of factors quantifying labor productivity. Labor productivity generally was identified as lagging substantially behind national productivity growth during the 1960's (See Chapter II, p. II-23), and manpower training and improved labor force quality represented important strategic items in the overall plan objectives. Current national emphases on technology and its importance for increased worker productivity probably warrant a stronger treatment of the subject than the present document has given it.

#### Chapter IV, Four Corners Economic Structure 1950-1970

This chapter examines the regional economy principally through an econometric model designed to furnish output, earnings, and employment data for ten economic sectors. The explicit form of the model (i. e., its equations) are given in an appendix and most of the evident difficulties encountered in developing and applying it are called out candidly.

As noted in our comments on Chapter II, we believe some change is required for the terms "gross product" (p. IV-3) and "real earnings" (p. IV-9).

On p. IV-20 the trend of labor productivity growth is noted as dropping behind that of the nation in regard to manufacturing employment. But not in this or in other analyzed sectors is a measure of labor productivity singled out. Since the information appears to be available in the data base to make adequate estimates of worker productivities in these other sectors, a more balanced presentation would warrant the effort.

The chapter is long (144 pages) principally due to the need to examine each state singly by the same sectoral detail and categories used for the entire region. We see no way to avoid some of the tedium that is necessarily generated this way. On balance, we believe that the positive value represented by the uniformity of treatment to the constituent elements probably outweighs the costs.

The concluding section of the chapter summarizes the strengths and weaknesses of the economy. On p. IV-142, it is asserted that "technical efficiency of much of the labor force" represents a positive factor in the region's economy. We could find no measurable evidence supporting this claim for "technical efficiency..." again, the question of measuring productivity.

The region's weaknesses are <sup>Candidly</sup>~~candidly~~ identified. In fact, the serious problem represented by "population centers not being linked together" and some of them being "linked to population centers outside the area" may well speak against the existing boundary of the region as reflecting any economic sense. (See p. IV-143.)

The current draft makes nothing of this implied conclusion, however. In particular, it overlooks the full significance of the market demand potential that may be present in both regional and non-regional population centers. This is a key factor in development analysis and, if not included in revisions of the current document, surely warrants extensive examination in subsequent research and versions of the plan.

#### Chapter V, Forecasts of Population and Economic Activity - 1980

This chapter presents forecasts of population and economic activity in the same extensive detail as the previous chapter. In an oversight, the title fails to indicate that the chapter also examines the costs of closing both income and job gaps.

We have already pointed to the need for some explanation or proof of the "recursive equation" feature of the model, again mentioned on p. V-3.

The forecasts of economic activity presented in the chapter are detailed and interesting. Multipliers drawn from the econometric analysis are useful. Somewhat surprisingly, they are not applied to some of the industrial development projects identified in Chapter VI, probably because of insufficient time to do so in the preparation of this draft. As with all projections, caution is necessary in drawing heavy inferences on the basis of a very small number of observations which, in time series, merely illustrate the trends of the 60's. This danger is partly handled by examining two growth paths, thereby setting reasonably relevant ranges within which more direct programming could proceed.

On p. V-8, it is stated that "the earnings equations for each sector were estimated as a function of the respective gross products." The implication is that earnings are derived in some functional way from gross product. Yet, in Appendix A-V-s, p.2., it is stated that "gross product data were generated from earnings series according to the following relationship," whence follows an equation making regional sector "product" a function of regional sector earnings

multiplied by the ratio of national sector "product" to national sector earnings. Some clarification of which is a function of what is evidently needed.

On p. V-10 the observation is made that the New Mexico gross product multiplier in manufacturing is "too strong," as is the case with the employment multiplier for manufacturing. We agree that the calculated values appear too large. But the reader is entitled to more explanation of why they took these values. Stating that "the reason for the overstatement of manufacturing effects in New Mexico is traceable to the low historical growth rate for manufacturing compared with other sectors" is not a very full account. Rejecting this particular output of the model and adjusting it downwards amounts to rejecting either the model structure or the New Mexico data series. A more extensive treatment of the issue is warranted, we think. Also, we believe more careful explanation is needed against the observation on p. V-10 that "New Mexico manufacturing has been strongly tied to Federal Government expenditures during the last two decades." We do not fully understand the relationship alluded to here.

The middle sections of the chapter addressing population, income, and job gap projections are expressed at state level detail. Most creditably, the document examines the potential migration implied among state sub-regions for job gap closure. This is a feature of development planning analysis not often seen. While no cost estimates are given for this necessary migration, except in the costs of the public investments deemed necessary for job gap closure, the willingness to address the issue of intra-regional migration and mobility is laudable.

As for the investment costs associated with closing income or job gaps, the Plan acknowledges the somewhat surprising finding that the sector incremental capital output ratios which aggregate to 2.6 nationally and 3.1 regionally should produce capital-labor ratios that are smaller for the region than for the nation. We have no quarrel with the explanations offered (pp. V-121 and V-122) for why the regional capital-labor ratio should be less than the nation. We do question, however, the absolute levels of both the regional and national figures, since \$29,000 and \$32,000 (in 1958 dollars) regionally and nationally to create an extra job seems



unrealistically high and the estimates would be even higher if expressed in current dollars. For example, fairly well-known industrial estimating factors for the private capital cost of a manufacturing job nationally run around \$18,000-\$20,000. \* Even if public capital costs were added to this, the result would not approach the \$29,000 (in 1958 dollars) estimate given in the Four Corners plan. We are frankly perplexed at this, since it is possible by a completely different method to estimate investment costs for closing the 48,000 job gap that generally reflect the \$18,000 figure cited above. For example, assume the national experience that wages and salaries represent .80 of total value added output. Assume that the average annual earnings (wages and salaries) in Four Corners was \$4,800 in 1958 dollars. (This \$4,800 is, in fact, the Four Corners 1959 regional average earnings derived from data given in Tables IV-3, IV-4 on pp. IV-6, IV-7 of the draft plan and calculated merely by dividing 1959 employment into 1959 earnings.) The gross regional value added output associated with this average earnings of \$4,800 is \$6,000 (i.e.,  $\$4,800 = \$6,00 \times .80$ ). The aggregate regional output due to 48,000 jobs then is \$288,000,000. Using the Commission's aggregate regional capital output ratio of 3.1 offered in the plan, this would produce a total capital outlay of \$892.8 million in order to generate the \$288 million of output based on the 48,000 extra jobs. In contrast to the Commission's \$1.4 billion estimate, this \$892.8 million translates into \$18,600 capital cost per job for the 48,000 extra jobs. Since it is expressed in 1958 dollars, using the Commission's price index adjustor of 1.534 to bring the estimate to current dollars (see p. V-123), provides an estimate of \$28,532 per job which, it will be noted, includes the public share. We believe that public investment currently represents 25 percent of total investment, which if subtracted from the total would leave \$21,400 private capital costs

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\* An Appalachian Regional Commission study, Capital Resources in the Central Appalachian Region, August, 1969 estimates new manufacturing jobs at \$20,000 each in 1969. The Economic Almanac of the National Industrial Conference Board indicated that \$18,451 per production worker was required in 1963. And a survey of 13 southern and midwestern states for 1964-68 disclosed that jobs in new plants cost about \$17,000 each in 1968, according to the Association of State Planning and Development Agencies Newsletter, September 26, 1969.

per job in current dollars. This, it is clear, seems much more reasonable in relationship to the conventional and accepted figures we have cited. The result, however, is to question the total investment costs of \$1.4 billion for job gap closure as furnished in the current plan.

On p. V-123, the assumption is made that public investment will absorb 40 percent of the total investment requirement. No explanation or justification for this share is given, however. We think some explanation or adjustment is warranted, as we have noted earlier. This will obviously involve the private investment estimates as well.

Pages V-123 to V-125 discuss the investment costs associated with the previously calculated personal income gap for the region. Since the investment needs for income gap closure are so large, the Commission has concluded that the income gap goal is unrealistic and that job gap closure is more feasible. We have no quarrel with this judgment. It might be worthwhile, however, to add a brief section indicating how much of the calculated income gap would be closed by closing the job gap. There are some implications in such estimates that may bear upon subsequent versions of the plan, principally in the area of income distribution. Since the Plan has already raised some of the distributional problem in the person of the Indian and Spanish-speaking minorities, this examination of the income gap could well prepare the way for subsequently needed program and project development.

#### Chapter VI, Proposed Economic Development Program

This Chapter sets out the individual program and project activities deemed feasible for closing the job gap over a 10-year period and carrying an implied annual growth rate of 5.0 percent instead of the 3.4-4.4 percent rate expected in the absence of the program. The framework of the development program and the individual projects descriptions are well-presented, as are the proposed sources of funds and their allocations. Obvious care was taken to ensure that the selection of projects would be those over and beyond ones normally expected

and that would, at the same time, meet the approval of each Federal, State, and local agency. As we all know, this is one of the hardest parts of development planning, viz. fitting the pieces together once the outside framework of the jigsaw puzzle has been assembled.

Our major objection to the presentation of the six functional areas that constitute the development program (e.g. transportation, education, industrial development, etc.) is that no explicit treatment or discussion of priorities is evidenced. The reader is left to derive implicit priorities from the relative shares that each functional program takes of the total recommended budget. This omission shows up most dramatically in terms of the expected benefits. The actual number of jobs and the amount of income expected from a public investment of \$1.4 billion (plus \$1.6 billion in private investments) are not aligned with the recommended projects. The one exception is the tourism and recreation program. Quite detailed job and income effects are aligned to investment for each of the proposed projects, which is testimony to the Commission's prior investment in research and analysis (Table VI-8).

As for the functional programs, sixty highway projects are listed and described. Benefits, however, are rather vaguely described and generally unmeasured. Shares are prescribed for the cost estimates, the burden of which is substantial. At the minimum, however, some method should be applied for estimating at least the total benefits in the job and income impacts expected for these projects. The education program and its constituent projects receives similar treatment. Benefits likewise should be more fully quantified in order to provide better funding justification. In the same vein, job and income estimates are not given for the industrial development projects--the one program for which impact estimates would definitely add strength to the plan. Agriculture program benefits are carried in purely descriptive terms (such as "benefit ranching..." and "...improve farming"), as are those for housing and the water and sewer projects under the health program.

A few detailed queries follow.

On p. VI-2 the previously questioned 40/60 public private sector investment split is referenced. As before, we believe this assumption should be justified explicitly. On the same page, an 80/20 ratio of Federal/State cost sharing is stipulated. We believe this is the conventional grant cost-sharing formula. But if so, it should be noted explicitly.

Starting with page VI-7 and following generally throughout "investment (or other cost)" estimates are given for each of the functional programs and projects. No indication is given as to the nature of these costs, however. We presume that they are conventional cost estimates derived from federal project applications. Some clarification is needed.

Table VI-4 (pp. VI-53 to VI-56) presents the general results of an industrial selection and screening exercise performed for the Commission by Battelle Memorial Institute. The screening method is conventional and workable and provides useful guidance to setting and implementing industrial priorities and projects. Since the 21 sub-regions used in the Battelle analysis are both within and outside the region, we think that some brief attention is warranted as to the implications. For example, to what extent do the proposed industrial development projects reflect the screening analysis? What policy implication rests with analysis of sub-regions outside the formal regional boundary? What significance can be drawn from the analysis for growth center strategy and priorities? As a simple test, we had some difficulty with the single largest industrial development project, a \$4 million railroad between McKinley County, N. M. and Apache County, Arizona and its place in the screening system. We couldn't find that the railroad said very much to the two sub-regions involved or that the sub-regional analysis said very much to the railroad project. We recognize that demanding full and articulate conversations may be somewhat premature at this time, however.

Chapter VI ends when it ends, which is to say, abruptly. We believe that some effort should be made to offer the reader some sense of how much of the

proposed job gap this aggregate program is expected to deliver. Without it, one goes away knowing quite well what the objectives are, what the investment costs are expected to be, but being left rather empty as to how much of the ten-year goal the proposed program is expected to reach. It is implied that one must assume all these program expenditures will together eliminate the job gap.

#### Technical Appendices

Various technical appendices are given, generally supporting material in certain key chapters. Our principal remarks are directed to Appendix A-V-1, "Econometric Model."

We have already asked for clarification of the expression "recursive equations" used to describe the model. (See Appendix, p. A-V-1, p. 2.)

Similarly, we have questioned the estimation of earning for each sector as functions of gross products, when the gross product data are derived as regional sector earnings multiplied by a national sector product/earnings ratio. (See A-V-2, p. 3.) Since regional "product" by sector is not known from any original data, it must be estimated from some other data, which is the regional earnings by sector series compiled by OBE adjusted by the national product/earnings ratios.

The authors observe that the "major weakness" of the model is one of data availability. This affects the reliability and validity of the regressions, as they candidly point out. Few observations limit the degrees of freedom of the functions. As expressed, however, we cannot tell how sensitive are the state and sub-regional rates of change of variables to one another and, therefore, how they are likely to fare through the projection period. All time-series based projection models necessarily assume that the observed trends will prevail into the projection period. Whether the analyst modifies the projections depends, of course, on his sense of their realism and relevance. In this case, the constant terms and equations are adjusted by an "add factor." (P. A-V-1, p. 3.) This factor is defined as the difference between the actual data and estimated values for 1970 alone.

We see no convincing reason as to why the "equations" were "adjusted" by these add factors, nor do we feel secure with the judgment that they were "small" and did not "materially" affect the forecasted results. Some of the add factors presented strike us as rather large, for example, -26.588 and +21.977 for gross product and earnings of the service sector in New Mexico (A-V-1, p. 18) or -8.961 and +2.594 for product and earnings in FIRE in Colorado. We recognize the difficulty present in explaining fully technical matters of this sort, especially when the amount of data and the number of variables and factors is as large as the case here. We urge this fuller explanation, nonetheless, since without it one is left with the uneasy feeling that all is not well.

Technical Review of the  
Four Corners Regional Commission  
Development Plan

Diagnosis and Misdiagnosis

The Four Corners Regional Commission Development Plan calls for large amounts of federal aid in the coming years on the basis that regional averages of per capita income and labor force participation are below the national averages. Regional projections say that this income and job gap will increase in the coming decade, and a substantial program of public and private investment is therefore proposed.

On the basis of the evidence presented in the Plan, this diagnosis appears erroneous and wasteful. The white non-Spanish population, which constitutes 70% of the total, is not economically distressed. Their income and participation rates are almost identical to the national averages, and higher than would be expected in a region of such a low degree of urbanization, and one in which the presence of large white university populations and retirement communities would act to lower these averages. The economic distress of the region thus is a figment of averaging-in the seriously distressed Indian and Spanish American populations with the comfortable remainder. Thus what is called a regional problem is really an ethnic problem, although one with regional aspects.

This mid-diagnosis is wasteful in terms of national purposes because, although more than half of the budget for proposed projects is addressed to communities or districts which are primarily Indian or Mexican-American, nearly half of the budget has no relevance for these groups. Further, examination of many of the projects which the Plan signals to be in minority districts would not appear to benefit these minority groups directly or significantly.



The data within the Plan, if not the analysis, makes clear that the principal problem is one of distributional equity in a dual (or tri-partite) society within the region. If, for instance, the income gap were to be closed, and the different groups within the region were to retain the present relative shares of income, the white non-Spanish population would then enjoy a per capita income about one fourth higher than the national average, while the other groups would remain substantially below. Although every one would naturally be happy to see the white non-Spanish population advance in its prosperity, their current levels of material well-being do not justify extraordinary federal aid in the form of supplemental projects based on federal legislation addressed to problems of economic distress. If there are districts or segments of white non-Spanish population which are economically distressed, the Plan should document this and proposed projects should be directed to improve their situation.

The Plan uses statistical averages and aggregate economic approaches, and thus operationally assumes that there is economic (and social) integration. But this is precisely what does not exist, as demonstrated by the very disparities in income and labor participation documented and by the well-known social circumstances in the region. The techniques employed assume an integrated economy, whereas in fact what is needed are detailed studies as to the social and economic causes of factor immobilities (including labor), market imperfections (including discriminatory pricing of labor and other factors), and other instances of market failure.

These studies should be quite concrete in addressing the question: Why is it that Indians and Spanish Americans have 20% and 12% lower participation rates, and 68% and 40% lower per capita incomes than the regional average? If these groups can be brought to regional parity, the region would obtain parity with the nation. Therefore one must know if these people are discriminated against in hiring or in pay, how their

capacities can be increased to match the structure of the demand for jobs, and one must also know about their societal, locational, cultural, and health situation to determine their willingness and capacity to take advantage of existing opportunities or those to be created. Without this focussed concern, it is to be expected that many of the benefits of aid will fail to materialize, and that most of those which materialize will benefit those who do not need aid.

Thus, the evaluation of specific projects (which is very slight in the Plan, generally only identifying projects, their cost and their locations) should itemize with care the jobs, incomes and other benefits that would be generated in terms of the particular segments of the population to be benefitted. A multimillion dollar road going through Indian territory may benefit tourists (who may buy virtually nothing from the Indians) or a mining concern and its non-Indian work force. Cost-benefit analyses of projects should not only be carried out, but should be unfolded to make clear the incidence of costs and benefits. The Plan assumes that a heavy stream of additional investment will act to close the job gap before it acts to raise the incomes of proprietors and those who already have jobs. There is no basis for this assumption. These matters will be discussed in more detail below.

#### Industrial Promotion and the Supply of Labor

A particular illustration is afforded by the section on "Industrial Development" (pp. VI-45ff.). This section consists of a screening of 4-digit SIC industry classifications to identify those industries most desirable and most feasible in the region. Although the procedure followed is too mechanistic and not industry-specific enough to be thoroughly reliable, it might provide a useful first step for a vigorous program of finding and promoting industry in the region. However, after producing a lengthy table,

the subject is dropped and there follows a listing of "Industrial Development Projects" consisting almost exclusively of investment in industrial parks. Yet many years of experience in this country teach us that putting money into infrastructure (including industrial parks) does little by itself to generate economic activity. It is perhaps a necessary condition, but it is far from being a sufficient one.

However, it is in the list of criteria for the selection of industries that the implicit assumptions can be seen. For instance, one of the objectives is the "attraction of new population". This hardly seems to make sense in an area of labor surplus. Similarly, a criterion of desirability is that industries "have average to above average wage scales." This hardly seems indicated if the incomes, levels of education, and levels of participation of the target populations is kept in mind. Low-wage, low-skill industries are more likely to be attracted to the existing labor surplus, and such industries are those likely to put to work the presently unemployed. High-wage industries should be welcome, but it appears more realistic to go for low-wage industries as a first stage in a strategy of industrialization of the disadvantaged populations.

But drawing a list of industries and hoping that they will come will not do much good, even with a rich program of physical infrastructure. What is needed is a positive coordinated program to increase the demand and supply of labor of the target populations. A vigorous program to recruit branch plants of national corporations (which are now being developed nationally mostly in non-metropolitan areas) must be undertaken through direct contact, negotiation, and facilitation. Many labor-intensive industries, ranging from textiles to electronics, have been migrating abroad in search of low-cost labor, and much present U.S. international trade policy must

be understood as a response to this. Such industries are prime candidates for direct contacts by representatives of the region. Similarly, international companies have begun to develop industrial capacity within the U.S. not only to get inside the customs perimeter but also to shorten their response time. These too should be contacted directly. Both of these types of industries are relatively footloose with respect to transport costs and oriented to non-unionized, low-skill but teachable labor. Further, although the issue of relative participation by sex is not discussed within the Plan, the sex-pattern of their hiring tends to be complementary to local patterns, and thus they can raise participation rates and family income without undue disruption of current economic activities.

Other actions of proven effectiveness are serious (as distinct from promotional) cooperation with management in providing information and analysis for feasibility studies. The experience of the Puerto Rican Corporation de Fomento during the 1950's and early 1960's provides a useful prototype addressed to many of the same problems (and perhaps even now it may be a source of advice and personnel for this type of effort).

Although, as I understand it, wage subsidies are not directly available through existing federal legislation, these are probably the most effective in attracting labor-intensive industries, and in encouraging them to retain labor-intensive techniques. By contrast, capital subsidy schemes, although better than nothing, tend to attract capital-intensive industry and to encourage shifts toward capital-intensive processes, and are therefore costly and sometimes counter-productive.

In the present context of U.S. problems and politics, given the special role of the Regional Commissions, they should represent to the federal executive and legislatures the advisability of expanded programs of aid aimed at wages and substantial training grants, rather than relying on the present emphasis on infra-structure capital.

Many other steps are possible and indicated to increase the demand for labor of the target populations. These include vigorous enforcement of fair employment practices, curtailment of restrictive practices by unions if they exist, affirmative programs of minority hiring in publically-sponsored projects (keep in mind that the Plan calls for a great deal of this). Since, on the whole it is the government and service sectors that are growing most rapidly, programs to increase the representation of minorities in these sectors are indicated.

Most of the previous recommendations do not address themselves directly to the development of minority enterprises. These require credit facilities (often hard to come by for social reasons and lack of management experience), aid to management in the form of product development, production management, and marketing, inventory control, bookkeeping, technical assistance, and so forth. Without exaggerating the potential economic importance of indigenous enterprises in the aggregate demand for labor, they can be of great significance for socio-psychological reasons.

At the same time that the demand for labor must be increased, the supply of labor requires serious attention. Even within the region, migration relocation assistance can be of great importance, as demonstrated by the high and low estimates of the job-gap within the Plan according

to various assumptions concerning intra-regional migration. But intra-regional migration aside, we know from the studies of minority disemployment in metropolitan areas that daily access can be crucial to labor force participation. Here the Plan vaguely justifies heavy investment in highways in terms of increasing the accessibility of jobs. But a concrete analysis of particular circumstances is needed: establishing a bus service may be a more effective way of getting potential workers together with jobs than building a highway, and cheaper. A job which is two chancy hours away or a job one cannot reach is a job which does not exist. Similarly, national experience shows that specific training for existing jobs is much more effective than general training. The Plan's vaguely-oriented investment in physical facilities for vocational education is no substitute for specific training for specific jobs, including on-the-job training.

Further on this, a work-force thoroughly capable of being productive may fail to take full advantage of opportunities because recruitment is not addressed to their particular circumstances. Considerable national experience is available on this. The jobs may be available, the disemployed may be willing and able, but the two may not come together without vigorous recruitment programs. And beyond, we know that the health problems (both physical and mental) of the target populations are crucial to their effective participation, so that health, community relations, family assistance and planning, and many other soft programs are essential to make people willing and able to take advantage of such job opportunities as may be generated.

In brief, we have in this region a nearly-dual society. The Plan looks at the averages and proposes a substantial increase in infrastructure investment, on the theory that this will create private investment, which will in turn create jobs. It is unclear whether this infrastructure will create jobs. It is unclear whether these jobs will go to the target populations. A more complete and messy program is needed, but one which is more pointed to the actual problems of improving the condition of the poor people of the region.

#### Migration and the Job Gap

The Plan, by applying national labor participation rates to the region's population concludes that the present job-gap amounts to 67,000 jobs. This figure is questionable because it uses the average of a highly urbanized nation, where the increase in participation in recent years has been the result of the increase of working women (mostly married), to a region which is primarily non-urbanized. It is also questionable because this job-gap estimate must be set against an enrollment of 25,000 at Brigham Young University and against the substantial (the Plan gives no numbers) number of residents in retirement communities. We have also pointed out above the doubtfulness of using averages in a dual society. But let us accept this figure, and the Plan's projections of the economy in the absence of extraordinary aid. If nothing is done, the Plan says that between 170,000 and 280,000 people will have to leave the region (compared to 71,000 in the 1960's). It states that the social and psychological costs of such massive movements would be unacceptable, and on this basis proceeds to calculate the levels of investment that would be necessary to enable the present population to remain in the region.



Although the use of the no-migration assumption is useful to establish an order of magnitude for the job-gap, the treatment in the document is too superficial. It ignores the actual behavior of people, and the fact that such net figures involve cross-movements which are far larger. The net migration figures are an abstraction: the balance between those who moved in and those who moved out. The data to be presented below indicate that the natural movements of population are much larger than net migration, involving hundreds of thousands of people moving in as well as out. Thus, the dismissal of a policy of downward population adjustment on the basis of the social and psychological costs of movement is considerably weakened.

The definition of the Four-Corners Region is one based on low income and employment. It is a homogeneous region of distress ringed by fast-growing metropolitan areas, which are just across an arbitrarily-defined regional boundary. An alternative definition of the region would include the metropolitan peaks of high growth which ring the current region.

It is instructive to compare the estimate of 71,000 net outmigrants from the region during the 1960's with equivalent estimates of 404,000 net immigrants into the metropolitan areas of Salt Lake City, Denver, Phoenix, and Tucson (this figure is based on my calculations from the 1960 Census of Population and the Current Population Reports Series P-23). In other words, any dynamic region is undergoing redistribution of population. And if the Four Corners Region is expanded to include its natural growth centers, it shows a substantial net immigration.

People are always moving around. To illustrate this for this region, I have prepared some figures. They refer to the last period

for which such information is available, 1955-1960, and to an area somewhat larger than that defined under the Regional Commission, because of the way the data is reported in the Census. It excludes, however, the above mentioned metropolitan areas.

The region being discussed here consists of 17 State Economic Areas (SEA's), and is slightly larger than the Four Corners Region. Yet the figures are illustrative. In the five-year period 1955-1960 there were 137,000 movements from one SEA to another within the region. From the region to the four metropolitan areas, there were 94,000 moves, and from these metropolitan areas to the region there were 65,000 moves. Thus the net movement of 29,000 from the region to the ring of metropolitan areas was the net residue of movements five times as large. Similarly, from the region to the rest of the country, excluding these metropolitan areas, 563,000 left, and 522,000 came in. (Figures derived from Migration Between State Economic Areas, U.S. Census of Population.)

Keeping in mind that the above figures refer to a period half as long as that of the Plan's projected outmigration figures, it is clear that far more people will be moving under any conditions than the maximum 280,000 that the Plan considers unacceptable for socio-psychological reasons. In half the time, in the period 1955-1960, there were five times as many moves in, out, and within the region. Over 600,000 people left the region, and about as many came in. Thus to argue from net figures is misleading, especially since much of the migration is an exchange of populations with the ring of metropolitan areas which complements the region.

Under these circumstances, one cannot justify the Plan on the basis of preventing the movement of people, because they will move and there will be an in and out exchange of populations far larger than any net gain or loss figure. It must be recognized that any program of job creation will provide jobs for people who are moving in. And it should be recognized as well that many who will move out of the region (regardless of what action is taken under the Plan) would benefit from educational and training programs to prepare them for productive and satisfying lives outside the region. Must a disadvantaged person limit his future within the region to merit aid? If the problem is too few jobs for too many people, cannot programs to prepare people to take advantage of opportunities in regions which are economically more vigorous be used to reduce the labor surplus?

These are, of course, complex and sometimes delicate questions, especially for a regional Commission, but they should be dealt with in the Plan. There should be more detailed studies of the migratory behavior of individuals and of ethnic groups. There should be a better relation of the national and regional objectives to the policy choices available. For instance, from the point of view of a national objective of efficiency or growth, the capital-output ratio is about one-fifth higher within the region than the national average according to the Plan, so that promotion of employment for the region's population within the region would slow the economic growth of the nation. And, of course, it appears that most of the new jobs created would go to new arrivals in the region.

### The Economic Model

The economic model represents an ambitious attempt to create a set of descriptive relations which will describe the present structure of the region's economy and predict its growth, and by estimating the relations among public and private investment, earnings, and employment, assess the consequences of a policy of increased public investment for incomes and jobs in the region. The relevant questions are (1) how well does the model describe or explain the present structure of the economy? (2) how well does it forecast the economy? and (3) how well does it assess the effects of an increased public investment policy? There are other questions, of course, concerning the social and distributional aspects that are hidden inside the aggregate figures of the model, and these have been mentioned in the previous section and will not be repeated here.

The model is essentially an export-base model. It assumes that certain activities (namely mining, manufacturing, and federal government) bring in dollars to the region, and that these dollars go around within the region and support services, local government, retail and wholesale, and so forth. Thus, if the primary or export sectors can be forecast, and their relations to the secondary sectors can be specified, the model will be a good predictor.

The basic logic of the model is a very usual one in regional economic analysis. Although increasing objections to its premises are being raised in the regional literature, no operational alternative is available, and the basic premises are reasonable approximations for a relatively small economic region with sparse inter-industry linkages.

Some question might be raised as to the dependency of the economy on regional exports, especially in the case of the underemployed ethnic populations, which may be able to produce goods and services for each other and thus increase their income and well-being without reference to exports. But on the whole, the basic logic may be granted.

A principal difficulty arises in trying to determine which are the export industries. For instance, the substantial student and retirement populations and tourism function as exports, bringing in dollars in exchange for local services, retail and wholesale, local government and transportation. These industries, which are classified as secondary in the model, thus act in part as basic ones. This the model ignores. Symmetrically, some of the manufacturing and mining enterprises probably produce primarily for markets within the region, and are thus secondary activities by the logic of the model, yet register as basic. This is a vexing problem in this type of analysis. Although a flaw, the question is how important a flaw? Is the approximation of basic and secondary industries in the model good enough?

The coefficients of multiple correlation attached to each econometric relation are extremely high, and under normal circumstances this would greatly validate the logic of the model's structure. However, in this case, several issues arise. Obviously, a great many relations were tried out, and only the best reported. Therefore the standard tests of statistical confidence do not hold: they say that the odds of finding something are one hundred to one; but if a hundred tries were taken, and only the success reported, it is hard to deny that the result may arise from chance. Indeed, the Plan reports several cases in which statistical

findings were tossed out because they appeared unreasonable from intuitive or other bases. Further, some of the relations are attributed, at least in part, to the rather mysterious element of Time, and thus are not really structural: what appears to be a model of the structure of the economy is in reality only partly that, and mostly a rather elaborate trend analysis.

It is interesting to look in some detail at some of the interdependencies. For instance, wholesale and retail trade depends in part on federal government activities in Arizona, New Mexico and Utah, but not in Colorado. Trade partly determines the level of transportation, communications and utilities in all states but Utah, which is the only place where it affects finance, insurance, and real estate. In general, these variations in interdependencies are not explained, and thus the statistical results are somewhat suspect. If there had been a reportage on intercorrelations, on the superiority of the reported relations to time trends and other naive assumptions, the statistical power would have been easier to evaluate.

Other questions arise. The assumptions and definitions of the gross product of the government sectors and the other service sectors are heroic, and amount to a measure of inputs rather than of outputs. The equations for manufacturing seem to indicate that, as reported, an increase of \$1.00 in the national GNP results in an increase of 94 cents in manufacturing output within the region, which is obviously wrong (are there unreported decimal shifts?). In Colorado, federal government activities have no effect, and manufacturing activity does not affect transportation, communications or utilities in any of the four states.

These commentaries, however, must be taken more as a commentary on the underdeveloped state of the art than on the craftsmanship with which the model has been put together. No better ready-made alternatives are at hand, and thus the model provides a forecasting tool which, although unreliable, is as good as any.

The next series of question deal not with the model's power to predict what will happen, but with its assumptions as to what will happen if an increased flow of funds is made available for infrastructure investment. The model includes estimates of the amount of capital needed per job and per dollar income increase in the region. By applying these figures to the projected job and income gaps, it produces estimates of the amount of capital needed to raise the number of jobs and the regional income above the neutral projections.

On purely technical grounds, some question may be raised about the concept by which output of several sectors is defined. For instance, in manufacturing and mining output is associated with the concept of value added. But in government, for instance, output is defined by the cost of inputs, making the value of education, health, or public safety equivalent to their cost. The evaluation of outputs of the service sectors of the economy is one of the most troublesome and unresolved in theoretical and applied economics today, and thus it is not surprising that the matter should not be clearly resolved in the model. Nonetheless, this remains one of the weaknesses of the plan. Further, there are certain confusing points in the basic economic data. For instance, in Table II-2 the earnings of construction are greater than its gross product.

Similarly, the approach to the income-capital and labor-capital ratios is problematic. According to the model, it takes nearly nine



dollars of investment in government to generate one dollar of output. This seems extremely doubtful if one takes education, social services, and other governmental activities into account. For trade, finance, and services the equivalent ratios are one tenth as large, and it might be expected that the public sector would have a similar ratio except in the area of public works.

#### The Model as Prescription

Whatever doubts there may be about the definitions and numerical estimates, the real weakness of the approach lies in the assumption that an increase in public investment, almost exclusively in infrastructure, will result in (a) a flow of private investment one and half times as large, and (b) in increases in jobs for the currently unemployed or underemployed. This might be the case, but it is merely assumed in the model without proof. Real grounds for doubt exist in repeated national experience, which has often found that private capital for directly productive activities has failed to materialize after infrastructure is provided. It would seem more sensible to employ regional energy and funds to a much greater degree for a frontal attack on the creation of jobs of the type described earlier in these comments, than exclusively in the provision of hundreds of millions of dollars in infrastructure.

The weakness of this approach is reflected in the presentation of the Plan. After the aggregate economic model has yielded estimates of the magnitude of public investment needed to close the job gap, there follows a long list of projects which is, with few exceptions, hardly tied at all to their job-creating effects. Since particular projects

vary in estimated cost from a few thousand dollars to many million, some effort should be made to estimate the job-creating potential of each project, and to show the dollar cost per job. This, of course, is not easy for infrastructure projects, but much more could be done than has been done. Further, it seems essential that these estimates of job creation be referred directly to jobs for the target populations, or to other explicit targets.

A particular question is raised by the dominant position of highways in the proposed budget. Highways lead out as well as in. In a region that depends considerably on primary production activities, it is quite possible that improvements in transportation, by reducing transport costs, will shift some of the processing away from a material-orientation and thus, while increasing the efficiency and profitability of the operation, actually reduce jobs in the area. Again, more concrete analysis of the effects of the projects is needed. Reliance on the averages of the model is weak justification.

Some other troubling issues should also be examined. For instance, state and local contributions to the investment program are estimated at more than \$120 million in the four-year period FY 1973-76. It would be useful to have some idea of state and local government's fiscal capacity and consequences in terms of taxes or borrowing.

Similarly, federal and local contributions average over \$155 million per year, primarily to be spent on construction. This would represent a very large increase in the Contract Construction sector, and a far greater one if the predicted stream of private investment materializes. The capacity of this sector to absorb this increase should be studied, to determine whether this increase would result in increased costs or

other difficulties, or in the importation of workers, materials, and equipment from outside the region.

#### Direct and Multiplier Effects of Increased Public Investment

A most important consideration that appears to have been overlooked in the formulation of the plan are the direct and multiplier effects of the investment stream itself. Whether or not the proposed public investment would attract private investment and create eventual jobs, it is clear that it would immediately create something like 15,000 direct jobs in the actual construction, and that as these workers spent their earnings, that this would create other jobs by the multiplier effect. The total effect might be in the order of 45,000 jobs. Thus, whether or not the logic of the Plan's analysis is valid as to the long-run job creation, a massive program of public works would have WPA-type effects which, if projects are selected with regard to their local job-creating capacity, would reduce the present job-gap by about two thirds. If the induced stream of private investment materializes, the total number of jobs generated by the investment activity would far exceed the job gap. Would this create a labor shortage which would accelerate immigration into the area and thus create the conditions for a bust after the investment boom? And what are the affirmative programs to insure that the region's disadvantaged populations be the holders of these jobs?

Such direct consequences of the proposed actions as local fiscal consequences, sectoral capacity, and increased direct demand for local labor should be incorporated into the Plan.

#### The Limitations of the Model

To summarize, the weaknesses of the model are: (a) that it is a

doubtful numerical predictor, although there is no ready alternative that can be shown to be better; (b) that by using averages and aggregate figures, it ignores the factor immobilities of a dual society, and thus ignores the central problem of the region; (c) that it prejudges what are export or basic industries; (d) that it ignores the direct effects and their multipliers of the proposed expanded investment streams; (e) that it assumes that public investment in infrastructure will automatically generate private investments in directly productive activities one and a half times as large; and (f) that it assumes this will produce jobs that will go to the currently underemployed populations, and (g) that it assumes these will be willing and able to take these jobs.

#### Planning from Above and from Below

The model is used to provide an estimate of the jobs and incomes needed and of the dosage of investment that will be needed to plug up these gaps. It is a form of macro-economic planning which can produce more or less correct aggregate numbers for planning targets. It cannot generate specific proposals. Thus, this form of planning from above must be complemented with planning from below, in the form of a collection of projects. This the Plan does, but it does not go far enough. It would appear that the main criterion has been to assemble enough projects to add up to the totals generated by the aggregate model. What is really needed is the evaluation of individual projects with respect to their cost-effectiveness for achieving the objectives of the Plan, hopefully with the modifications indicated in these comments. In particular, alternatives to public infrastructure activities should be evaluated. Cost-effectiveness is the principal means of linking the specific proposals to the overall targets of the Plan.

It would be unrealistic to expect that the Plan could, at this stage, produce full evaluations of all of the projects that might be considered. But the Plan is silent as to the institutional processes by which agencies and participating citizen's groups can be stimulated and integrated to generate, design, evaluate and negotiate particular projects. Neither does it propose mechanisms of feedback to follow up on the failures and successes of the actions undertaken. The development of such institutional soft-ware would seem essential for the linking of the particular projects and activities to be undertaken with the aggregate targets of the plan.

The general difficulty is that a model such as the one presented in the Plan is a very simplified version of the world. It can be, and certainly will be, a valuable component of a better rounded plan, but particular care must be taken to make use of the power of its simplifications without becoming entrapped by them. The use of averages hides differences among the population groups or in the effectiveness of particular alternative actions. Because arithmetic relations link such things as public expenditures, investments, and jobs in the past, it cannot be assumed that doing the first will lead to the last without other actions to make it happen. Because health, institutions, discrimination, politics, ecological consequences, industrial capacity, direct contacts with industry, and many other variables escape models of this sort, they tend to be ignored. Because undifferentiated investment appears as a variable, yielding undifferentiated effects it tends to focus undue attention on that single variable, yet obscures the variation in the merit of alternative investments in terms of concrete consequences for specific people.



**U.S. DEPARTMENT OF COMMERCE**  
**Office of Business Economics**  
Washington, D.C. 20230

Date: November 19, 1971

Reply to  
Attn of:

Subject: Comments on Four Corners Regional Commission Development Plan

To: Robert E. Ruddy  
Special Assistant to the Secretary for  
Regional Economic Coordination  
Department of Commerce

The economic development program proposed in the Four Corners Plan seems adequate to meet the general needs that exist in all under-developed areas. Reference here is to the programs and projects which relate to education, transportation, tourism, health, and other areas which are usually candidates for overall improvement.

However, the proposed Plan fails to present a specific program designed to identify and eliminate constraints on economic growth and to produce a positive growth response. Moreover, because of the general nature of the proposed program, it is not possible to estimate its impact on the economy of the Region. Instead, the study simply measures the magnitude of the task by calculating (1) the size of the job gap, (2) the size of the income gap, and (3) the amount of capital investment that will be required if the gap is closed. The total investment program, incidentally, is not designed to eliminate specific growth impediments but the bulk of it is assumed to be made in response to economic growth. Nowhere is there any assessment of the extent to which the proposed plan will diminish the gaps. Such an assessment would seem to be an essential element of any regional development plan.

A substantial part of the Study effort has been expended on measuring and projecting gross regional product (GRP). This has added nothing to the Study; instead, use of GRP has introduced a potential for error by incorporating an unnecessary step into the estimating procedure.

The estimates of GRP were prepared by inflating the OBE earnings figures for each major industry division by the U.S. ratio of GNP to earnings, with identical ratios used for each subregion. For the GRP estimates so calculated to be meaningful, two untenable assumptions must be made: (1) The rate of return to capital and the quantity of capital used relative to labor must be such that the total return to capital is a constant function of the cost of labor in each area; and, (2) the detailed industry-mix within broad industry divisions (mining, manufacturing, etc.) must be

approximately the same in each subregion of the Four Corners area as in the Nation. It would seem that neither of these assumptions is correct. Therefore, the inflating of each subregion's earnings to a higher and meaningless level for the type of analysis carried out in the Study has yielded no valid conclusions that could not have been derived as readily and more directly from the earnings data alone.

Use of GRP has probably led to erroneous conclusions regarding changes in productivity in the region. That is, the method used to construct GRP, as already noted, carries the implicit assumption that the total return to capital is a constant function of total earnings of labor in each and every region. Therefore, if productivity in the region did move differently from productivity in the Nation, the methodology would impart to the GRP measure only a portion of the differential change, i.e., that accruing to earnings.

The potential sterility of the analysis of GRP is shown in the statement at the bottom of page IV-11, which says "The earnings' decline coupled with the increase in real output implies that factors other than labor increased their share of total product." This statement really means that nationally capital's share increased relative to that of labor, and that it is assumed the same thing happened in the Region. There is no evidence regarding any regional change in the shares of capital and labor.

Because of the method used to calculate GRP (use of national ratios), regional differences in production per employee should not be ascribed to differential changes in the productivity of labor as the report does. Instead, they reflect nothing more than changes in money wage rates which may or may not have stemmed from a regional change in productivity. The report could better have concentrated on analyzing the relative changes in money wage rates in the region -- assuming they reflect more than statistical differences in the earnings and employment series.

The potential error in the GRP figures is illustrated strikingly in tables IV-2 and IV-5 of the Study. There, real gross product originating in the Federal Government increased 4.8 and 2.9 percent per year in the Four Corners Region during the decades of the 1950's and 1960's, respectively. The comparable employment increases were 4.9 and 4.0 percent. By definition, real gross product in most of government increases at the same rate as does employment. In these terms the 4.8 and 4.9 percent annual gains in GRP and employment during the 1950's seem entirely reasonable. The annual increases of 2.9 and 4.0 in the two series during the 1960's appear unreasonable.



It is a near certainty that much of the difference in the two ratios reflects statistical error in one or both series and not a differential movement in productivity.

My criticism of the heavy reliance which the analysis places upon GRP stems from the fact that the GRP estimates are inadequate for their intended use and from the fact that GRP is not really essential to the Study. As is pointed out, much of the non-earnings portion of GRP goes outside of the Region anyway and so is not relevant to the Region's economic well-being. In addition, the primary economic goals of the program are an improvement in per capita income and employment -- elimination of both the job and income gaps. Accordingly, why not focus the analysis directly upon these two elements instead of interposing GRP between them in the analytical process?

The Study correctly points out that the basic, or export, industries such as mining, agriculture, manufacturing and government provide the driving force behind total economic growth in the Region. Some analysis of the economic balance or imbalance which characterizes the nonbasic, or local service, portion of each sub-region's economy would have been helpful. It is quite likely that this portion of the economies of the various subregions may well have weaknesses that a development plan could aim to remedy. In addition, such an analysis could shed light on the feasibility of developing a viable economy in the sparsely populated portions of the Region.

Incorporation of some of the results of the Battelle study of the industrial potential of the area adds significantly to the analysis in that it provides a list of industries on which attention can be focused most efficiently. However, the Study stopped short of the really conclusive analysis. Why have these specific industries not come into the area already? What constraints must be eliminated so that they will come in? What development plan will remove the constraints and promote growth of the desirable industries? And, finally, what will be the impact of projected industrial growth on the job and income gap?

Finally, I should like to comment especially on a statement in the Study which notes that gross errors were found in certain of the OBE earnings series in Arizona, New Mexico and Utah -- see pages IV-2 and V-3. This statement reflects a misinterpretation of OBE's figures. The 1970 earnings data which the authors of the Study used as historical measures were actually projections made from a 1967 historical base. They were labelled as projections in the OBE data. The fact that projected 1970 earnings differ from actual

earnings in 1970 (which will not be measured until June, 1972) is not especially significant in an evaluation of our projections, for we attempt to measure the secular, or long-term, trend in an area's economy. We make no attempt to project the impact of a business cycle development or the short-term effect of some special economic development such as a crop failure, a large-scale construction project, or other temporary economic phenomenon. This concept yields a measure of the economic growth trend of an area economy which is in general equilibrium at full employment (4 percent unemployment). This, in turn, provides the benchmark from which the economic impact of a development plan can be measured.



ROBERT E. GRAHAM, JR.  
Acting Associate Director  
Regional Economic Analysis



**U.S. DEPARTMENT OF COMMERCE**  
**Bureau of the Census**  
Washington, D.C. 20233

OFFICE OF THE DIRECTOR

Date: NOV 17 1971

Reply to  
Attn of:

Subject: Four Corners Plan

To: Mr. Robert E. Ruddy  
Special Assistant to the Secretary  
for Regional Economic Coordination

From: Walter F. Ryan  
Associate Director

*Walter F. Ryan*

This is in reply to your memorandum of October 29 with which you transmitted a draft copy of the Four Corners Regional Economic Development Plan.

The plan presents a comprehensive strategy for expanding the region's annual growth rate. We have no specific suggestions for altering the Commission's report. In reviewing the report, we were pleased to note that the Commission made extensive use of Census data in defining the area's current and future characteristics. We would be pleased to work with the Commission to furnish such other information as may be needed if the report is updated.

cc:  
Mr. Stanley Womer



**U.S. DEPARTMENT OF COMMERCE  
Economic Development Administration**

DEC 17 1977

MEMORANDUM FOR ROBERT E. RUDDY

SUBJECT: Four Corners Regional Commission Development  
Plan dated October 1, 1971

Attached is a copy of our letter to Federal Cochairman Stanley Womer in which we commented on the major aspects of the report.


As you will note, our comments are divided into two parts: the first deals with the linkage between the economic analysis and the proposed development plan; the second deals with more specific problems relating to the lack of information on the Region's existing infrastructure, short-comings in the economic models employed, and the lack of commitment to full participation in the program by minority groups.

While the economic analysis and development plan are relatively comprehensive as individual entities, the linkages between them are not entirely clear. Specifically, no projections of the expected benefits and costs of individual types of projects are provided, and hence there is no way of choosing from among alternative programs or projects in establishing funding priorities. In other words, should the amount of Federal money received by the Four Corners Region fall short of that "required" to eliminate the expected job "gap" by 1980, there is no mechanism for directing it to the projects where the greatest and most equitable impact is expected.

There is also a need for detailed information on the Region's present infrastructure (e.g., schools, hospitals) including both its quantity and quality, so that the projects proposed in the development plan can be compared more directly with regional needs and an inventory of public facilities can be maintained.

Also, the econometric models used to project regional product, earnings, and employment should be reviewed. There are alternative types of models available that may complement the recursive structure employed by providing additional information for planning purposes. Also, the technical problems identified by the authors of the Plan should be investigated further in terms of biases which may be introduced in the estimates.

Finally, but not least important, while the Commission exhibits a strong commitment to placing projects in areas where minority groups reside, there is no plan providing for the full participation of members of minority groups in the regional development effort. A program directed to the elimination of institutional discrimination should be proposed.

  
for ~~Joseph G. Hamrick~~  
Deputy Assistant Secretary for  
Economic Development Planning

Attachment



**U.S. DEPARTMENT OF COMMERCE  
Economic Development Administration**

December 17, 1971

Honorable Stanley Womer  
Federal Cochairman  
Four Corners Regional Commission  
U. S. Department of Commerce  
Washington, D. C. 20230

Dear Mr. Womer:


We are pleased to submit detailed comments, prepared by our Office of Planning and Program Support, regarding the Commission's draft Development Plan. Although we feel that the plan you have proposed represents a sound approach to regional planning, there are several areas in the plan that could be strengthened.

The primary concern we have is that there is only an indirect link between the economic analysis performed and the proposed economic development program. Specifically, the analysis is used to project regional job and income "gaps" expected to exist during 1980. The amount of public investment needed during the coming fiscal years to close these "gaps" by 1980 is also projected. Then a "shopping list" of special projects is suggested. There is no way of establishing priorities for selecting from among alternative projects. This may present a major problem if the full amount of Federal aid needed to implement these projects is not forthcoming during the time period projected. The Commission should seek to develop evaluation criteria for each type of project proposed, so that choices can be made among projects if unforeseen budget reductions are forthcoming.

There are three other areas that should be addressed further. First, there is no discussion of the Region's present infrastructure (e.g., public facilities such as schools, libraries, hospitals). We feel that planned public investments should take account of both the quantity and quality of existing facilities as well as their geographic distribution relative to the location of the people they are intended to serve. Second, the econometric model used to project regional employment and earnings

suffers from structural problems, lack of data points, and estimation biases which should be given further attention. Finally, although there is a strong commitment to place projects in areas where members of minority groups reside, there is no explicit program to assure that minorities will share in the economic benefits derived from the overall program of the Commission. Since minorities are the worst off economically in the Region, we feel strongly that a program designed to ensure minority participation and eliminate discrimination should be a high priority matter.

Sincerely,

  
for Joseph G. Hamrick  
Deputy Assistant Secretary  
for Planning

Enclosure  
Copy of Detailed Comments





**U.S. DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
Rockville, Md. 20852

Date : November 22, 1971

To : Mr. Robert E. Ruddy  
Special Assistant to the Secretary  
for Regional Economic Coordination.  
From : Robert Kay, Acting Chief  
Policy Development Division  
Subject: Four Corners Plan

The responsibility for NOAA representation on the Intradepartmental Committee on Regional Economic Development has been placed in this office under the reorganization of NOAA. Dr. Robert Kay will serve on this committee in the place of Mr. Morton J. Rubin.

Our review of the Four Corners Regional Development Plan indicates that the establishment of geodetic control and necessary benchmarks is a significant problem, both in relation to specific parts of the Development Plan, such as surveying and mapping to support resource development in the private sector, and in relation generally to economic development of this region. Continuing correspondence from state and regional agencies makes reference to severe retardation of economic development because of inability to acquire clear land title in the Four Corners Region. Boundary determinations require full geodetic control as a base.

Under OMB Circular A-16, NOAA is responsible for the National Geodetic Network and coordination of related survey activities of all Federal agencies, including activities financed in whole or in part by such agencies. Coordinate position locations in the Four Corners Region are a fundamental requirement for permanent location, establishment and restoration of boundaries and boundary corners, engineering plans and surveys, and the National Topographic Map Series for road and other types of construction. Full development of the National Geodetic Network over the Four Corners area should be incorporated in the Regional Development Plan at an early stage.

We will expect to hear from you as to the time and place for a meeting with the Federal Co-Chairman and his staff and the Departmental agencies.

cc: Mr. S. Womer, DOC



**U.S. DEPARTMENT OF COMMERCE**  
**United States Travel Service**  
Washington, D.C. 20230

Date: November 3, 1971

Reply to  
Attn of: R&A/USTS

Subject: Four Corners Plan

To: Mr. Robert E. Ruddy  
Special Assistant to the Secretary  
for Regional Economic Coordination

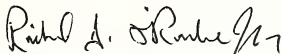
The "Four Corners Regional Commission Development Plan" appears to be based upon extensive research and presents a technically precise approach. There are a few areas which might prove to be worth exploring in greater detail and our comments are directed to them.

With regard to copper and other minerals, it would appear that there are opportunities which should be more fully evaluated. Although it is true that mining does not directly offer substantial employment increase possibilities, the plan did not appear to fully address some of the related opportunities. For example, there are increasing problems with the environment versus strip mining and pollution generated by refineries, etc. If these problems are not resolved, the level of employment in the mining industry may be jeopardized. On the other hand, the solutions, if properly developed, could expand employment. For example, strip mining, if properly planned for, can be used to improve the landscape by creating new artificial lakes or new forestry areas, etc. In the case of air pollution from copper refineries (many of which are both obsolete as well as located outside the Four Corners Area) there is the possibility of providing tax benefits, etc., for building new pollution-free refineries within the Four Corners Area. There is also some attraction to locating the refinery near the mineral source. Aside from improving and expanding the more parochial aspects of mining, a case can also be made for encouraging more of the metal fabricators to move into the area. This segment of the metals industry, is usually hard-pressed by fluctuating metal prices and variations in supply as well as by extremely high labor and facilities costs in major industrial locations. If the Four Corners area were to actively encourage a balanced increase in mining and refining and offered some investment incentives as well, it might be possible to attract a significant increase in metal fabricating activities. This could result in both an increase in general employment as well as an increase in general wage level. The same arguments for attracting fabricating industry could be explored for the lumber resources. Prefabricated housing/modular housing components appear to be the wave of the future and it should be cheaper to ship the finished component rather than the raw lumber for fabricating elsewhere.

With regard to recreation and tourism, the plan recognizes most of the assets which are available but does not appear to evaluate how they could be marketed or to whom. If any long-term benefits are to accrue

from the assets, a comprehensive program for developing and promoting a broad range of activities should be developed at this point. Although distance from the major population centers is a problem, relatively low-cost air transportation can be developed, if sufficient interest can be attracted. Colorado has had a good deal of success in this aspect.

In summary, the plan as it now stands, appears to provide a realistic appraisal of the present situation and future possibilities. Of perhaps greater significance, the approach taken offers the possibility for dynamically evaluating progress over time.



Richard J. O'Rourke, Jr.

Acting Director

Office of Research & Analysis, USTS



**THE ASSISTANT SECRETARY OF COMMERCE**  
Washington, D.C. 20230

November 23, 1971

MEMORANDUM FOR Robert E. Ruddy  
Special Assistant to the Secretary  
for Regional Economic Coordination

Subject: Four Corners Plan

In accordance with your request of October 29, 1971 the following comments are provided.

Generally, this appears to be a very comprehensive and well thought-out plan. However, it is so voluminous and encompasses so many aspects of the problems concerned with the development of the Four Corners Region, one might be at somewhat of a loss to know just how to best use it. Perhaps a section could be included early on addressing the reader to its most effective interpretation. Hopefully, this could be accomplished without adding considerably more reading material but might well be in lieu of some of the greatly detailed portions such as one finds in Chapter III covering population data. The following comments are addressed to specific portions of the plan:

- Page I-6      What steps need to be taken to insure that the plan is tied to regional and state expenditure sub-models - thus making this planning model a potential policy-making tool in the public sector?
- Page II-1      Mention is made of the regional "employment gap" (as compared to the national average) but no mention is made of the considerably greater increase in employment participation for the region during the twenty year period over that of the Nation (0.107 compared to 0.068).

Note: This fact is brought out on a percentage basis on page II-6.

- Page II-7      Could not labor's share of the total mining product be raised if more of the processing of the area's natural resources were, in fact, centered within that area?
- Note: Here again, the environmental considerations cannot be overlooked. This has been well covered on page II-39.
- Page II-7      Have alternative modes of transportation to  
Page IV-143      highways and airports been considered? How  
Chapter VI      about rail? Had any thought been given to moving autos by rail such as is being done between the Northeast and Florida?
- Page II-40      What is meant by "conducting further environmental and ecological research" in connection with the "orderly economic growth and development" of the region? Examples of what has already been done would be useful along with results.
- Chapter III      Could not much of the material compiled under Population be condensed or treated as Appendix matter? Such action might reduce the size of this chapter considerably.
- Page III-83      Figure III-6 is excellent -- clear, concise, and easy to read.
- Chapter IV      The state approach used in this chapter seems to come off very well.
- Chapter V      Some additional guidance in the use of this information could be especially helpful to the reader here.
- Chapter VI      Should be very useful information to Governmental agencies with programs and missions in the Four Corners Region. What is the mechanism employed to get this information into the Planning/Budget cycle?

Page VI-5

Footnote 1 - Cross-references to "These issues and the implications of power plant investments ---- ." might be useful. Also, the public has been made very aware of the environmental problems brought on and "in the wind" from such power developments -- perhaps this issue could be addressed stronger in another part of the Plan (viz. II-38-40)

Page VI-90

USGS might, in fact, require some 1st order geodetic control network surveys conducted by the National Geodetic Survey (NOS/NOAA/DOC) in order to accomplish its planned survey and mapping programs. This would no doubt be worked out through BOB A-16.

Note: This was brought to the attention of the NOAA contact on this matter.

In conclusion, this Plan obviously represents a tremendous amount of effort on many people's parts. It is my hope that at least as much benefit accrues from its utilization as is represented by the resources which were allocated for its accomplishment.



Charles A. Burroughs  
Staff Assistant to the Assistant  
Secretary for Science and Technology

Copy Furnished: Mr. Womer

## **APPENDIX C**

### **WRITTEN COMMENTS FROM INTERESTED GROUPS**





**CABINET COMMITTEE ON OPPORTUNITY FOR THE SPANISH SPEAKING**  
(Formerly Inter Agency Committee on Mexican American Affairs)  
1800 G STREET, NORTHWEST, WASHINGTON D.C. 20506 (202) 382-6651

OFFICE OF THE CHAIRMAN

November 9, 1971

Mr. Stanley Womer  
Federal Co-chairman  
Four Corners Regional Commission  
U. S. Department of Commerce  
Washington, D. C. 20230

Dear Mr. Womer:

I want to thank you for your letter of October 27th and enclosure of the proposed Four Corners Regional Commission Development Plan.

After reviewing the Plan's objectives, strategy, policies, and programs, I note with satisfaction the great concern shown for the substantial economic needs of the Spanish speaking in the Region.

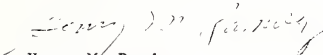
The intended effort to be made in carrying out the Plan's general strategy to concentrate particular programs and investments in Indian and Spanish surname communities is most gratifying.

Needless to say, the recommended Special Program for Spanish Surname and Indian Communities is most welcome, particularly in light of the recognized essential of having the main tasks under this program performed by local Spanish-American or Indian leaders.

The substantial number of Spanish-speaking in the region, which in all probability is now about 1 1/2 times greater than the 390,000 indicated in Table III-10 of the draft report, desperately need adequate implementation of programs such as are contained in the Four Corners Regional Economic Development Plan.

I would certainly be more than glad to meet with you at your earliest convenience.

Sincerely,



Henry M. Ramirez  
Acting Chairman



NATIONAL COUNCIL ON INDIAN OPPORTUNITY  
OFFICE OF THE VICE PRESIDENT  
WASHINGTON 20506

November 15, 1971

Mr. Stanley Womer  
Federal Cochairman  
Four Corners Regional Commission  
U. S. Department of Commerce  
Washington, D. C. 20230


Dear Stan:

We have reviewed the proposed Four Corners Regional Commission Development Plan, and feel this is a very comprehensive document.

We were pleased to see the attention given the Indians in the region. The Indians, of course, represent a good share of the deprived population of the region, and less development has occurred on the reservations than in other parts of the region. Therefore, we feel that the Indian situation must be emphasized, and should play a major part of any plan of the Four Corners Region.

In general, we feel the proposed report is well done, and we hope the Indians continue to receive the attention warranted in the final report. If we can be of any further assistance please call on us at any time.

Sincerely,



Robert Robertson  
Executive Director



STATE OF UTAH  
OFFICE OF THE GOVERNOR  
SALT LAKE CITY

CALVIN L. RAMPTON  
GOVERNOR

October 22, 1971

Mr. Stanley Womer  
Federal Cochairman  
Four Corners Regional Commission  
Room 1898 Commerce Building  
Washington, D. C. 20235

Dear Stan:

I am delighted to have the opportunity to review the Four Corners Regional Commission Development Plan document. I recognize this as a significant piece of work. However, it was found to have some important technical limitations, which are noted in the attached memorandum.

I do not find these limitations to be fatal to the Plan. But I do think that they can be to a large extent corrected. In particular I have in mind the goal, stated on page II-27, that the "Four Corners Regional Commission should set as its target the closing of the job gap," and similarly the income gap; and the attempt to compute a Gross Regional Product.

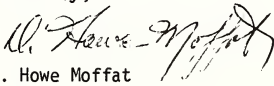
The job and income gaps would be closed when labor force participation and income equal the national averages. Such a goal denies that rural Utah may desire to remain somewhat different from the average. If it is desirable that the economy of rural Utah remains largely oriented to agriculture, recreation, and retirement, then a program forcing industrialization to the national average would be tragic. It would involve social and economic changes which would destroy the rural atmosphere. I strongly fear that programs with the potential of "closing the gap" would attract to growth areas more amenable labor from outside the region and would not have the power to move the ill-prepared Indian and Spanish-speaking poor.

Any attempt to estimate a Gross Regional Product, and its components, is based so much on mere guess and individual judgment that forecasts and recommendations derived from the estimates are highly suspect. To gain acceptance of the Plan, the concept "Gross Regional Product" must be eliminated and a more useful concept substituted.

Members of the State Planning Office staff inform me that they intend to extend a modified model to the whole of the State for application in the Utah Process. I am sure that the experience of, and the data and information in, the Plan will greatly enhance the quality of their work.

I look forward to seeing you here in Salt Lake City on November One.

Sincerely,



D. Howe Moffat

Governor's Alternate



STATE OF UTAH  
OFFICE OF THE GOVERNOR  
SALT LAKE CITY

CALVIN L. RAMPTON  
GOVERNOR

M E M O R A N D U M

To: D. Howe Moffat  
From: Office of the State Planning Coordinator  
Date: October 22, 1971  
Subject: Four Corners Regional Commission Development Plan Draft Report

This report is quite disappointing from a technical point of view for the following reasons:

1. Job gaps are inferred by multiplying the national ratio of employment to labor force population by the regional labor force population and taking the difference between this figure and actual employment in the region. Implicitly the method argues that the ratio of employment to labor force population should be the same in every region. But this ignores considerable interregional variability in labor force participation rates due to differences, inadequately handled, in various population characteristics such as age and sex distribution. The approach is simplistic, to say the least.

2. The gross regional product figures which underlie the econometric model and much of the argument for the proposed development plan are in the nature of a statistical artifice. Gross product originating in a sector in a region cannot be estimated satisfactorily by multiplying the national ratio of gross product originating in a sector to earnings from the sector by the regional earnings from the sector. There is simply too much interregional variability in the ratio of property income to earnings (and particularly in the ratio of profits to earnings) for this procedure to be even approximately valid. The United States Department of Commerce Office of Business Economics repeatedly has issued strong admonitions to this effect.

3. There is a very questionable use in the report of national sectoral capital-output ratios (ICOR'S) for estimating the amount of investment required to close the inferred job and income gaps. The aggregate job gap was apparently distributed over sectors (through the employment-gross product equations in the econometric model) to obtain an aggregate output gap. This aggregate output gap was then evidently multiplied by a weighted average of national sectoral ICOR'S (using regional output weights) to arrive at an aggregate investment gap. A similar procedure was used to arrive at the aggregate amount of investment required to close the income gap, except that the aggregate income gap was evidently distributed over sectors through the earnings-gross product equations in the econometric model to obtain an aggregate output gap. This approach yields a rather large amount of investment required per job created or per dollar of additional income generated. From the standpoint of a development plan, however, it might be preferable to favor those sectors

where jobs and income are cheap relative to required investment. Yet, there is no discussion of this question in the report. And, even more seriously, when a specific development plan is set forth, there is no examination of the question of whether the ICOR'S in the favored sectors are in fact such as to close the imputed job and income gaps.

4. One hundred twenty regression equations do not necessarily make a relevant econometric model. There are major questions as to how well specified this model is, both in terms of structure and variables. Since the model is of the "recursive" sort, it fails to reflect joint sectoral interdependence with the result that there can be no confidence in implied cause and effect relationships. Furthermore, the selection of exogenous variables leaves much to be desired. For example, though the price of molybdenum may have a strong historical correlation with aggregate Colorado mining activity, this is not sufficient reason to conclude that the price of molybdenum is the primary determinant of Colorado mining activity. The relevance of a number of other exogenous variables could be similarly questioned. Unfortunate also is the omission of any explanation as to how projected values of most of the exogenous variables were obtained.

The report also fails to note the fact that many of the estimated equations in the model fail to pass the Durbin-Watson test for the absence of autocorrelated disturbances. The upshot of this failure is that the statistical significance of the estimated parameters in these equations is exaggerated by the conventional "t" test.





**APPENDIX D**

**EXECUTIVE ORDER NO. 11386,  
DATED DECEMBER 28, 1967,  
ESTABLISHING  
FEDERAL ADVISORY COUNCIL**

# Presidential Documents

## Title 3—THE PRESIDENT

### Executive Order 11386

#### **PRESCRIBING ARRANGEMENTS FOR COORDINATION OF THE ACTIVITIES OF REGIONAL COMMISSIONS AND ACTIVITIES OF THE FEDERAL GOVERNMENT RELATING TO REGIONAL ECONOMIC DEVELOPMENT, AND ESTABLISHING THE FEDERAL ADVISORY COUNCIL ON REGIONAL ECONOMIC DEVELOPMENT**

WHEREAS the proper discharge of Federal responsibilities under the Appalachian Regional Development Act of 1965 (79 Stat. 5, 40 U.S.C. App.) and the Public Works and Economic Development Act of 1965 (79 Stat. 552, 42 U.S.C. 3121 *et seq.*), as amended by Public Law 90—103, 81 Stat. 257, requires that the participation of the Federal Government in regional development activities be effectively coordinated;

WHEREAS the President is required by the Appalachian Regional Development Act of 1965 to provide effective and continuing liaison between the Federal Government and the Appalachian Regional Commission;

WHEREAS the Secretary of Commerce has responsibility under the Public Works and Economic Development Act of 1965 for Federal economic development activities designed to alleviate conditions of substantial and persistent unemployment and underemployment in economically distressed areas and regions of the Nation;

WHEREAS the Secretary of Commerce is directed by the Public Works and Economic Development Act of 1965 to coordinate the Federal Cochairmen appointed to regional commissions established before or after the date of that Act;

WHEREAS the Secretary of Commerce is required by the Public Works and Economic Development Act of 1965 to provide effective and continuing liaison between the Federal Government and each regional commission established under Title V of that Act; and

WHEREAS the Secretary of Commerce has been Chairman of the President's Review Committee for Development Planning in Alaska, established to provide general direction and guidance to the Federal Field Committee for Development Planning in Alaska, established by Executive Order No. 11182, dated October 2, 1964;

NOW, THEREFORE, by virtue of the authority vested in me by the Appalachian Regional Development Act of 1965, the Public Works and Economic Development Act of 1965, and section 301 of Title 3 of the United States Code, and as President of the United States, it is ordered as follows:

**SECTION 1.** *Functions of the Secretary of Commerce.* The Secretary of Commerce shall—

(a) Provide the effective and continuing liaison required by section 104 of the Appalachian Regional Development Act of 1965 and by section 503(c) of the Public Works and Economic Development Act of 1965 between the Federal Government and each regional commission established under those

## THE PRESIDENT

Acts, and between the Federal Government and the Federal Field Committee for Development Planning in Alaska (hereinafter referred to as "the Field Committee").

(b) Obtain a coordinated review within the Federal Government of plans and recommendations submitted by the commissions and the Field Committee.

(c) Provide guidance and policy direction to the Federal Cochairmen and the Chairman of the Field Committee with respect to their Federal functions.

(d) Promote the effective coordination of the activities of the Federal Government relating to regional economic development.

(e) In carrying out the functions set forth in section 1 (a), (b), (c), and (d) the Secretary of Commerce shall—

(1) Review the regional economic development plans and programs submitted to him by the Federal Cochairmen, budgetary recommendations, the standards for development underlying those plans, programs and budgetary recommendations, and legislative recommendations; and advise the Federal Cochairmen of the Federal policy with respect to those matters, and where appropriate, submit recommendations to the Director of the Bureau of the Budget.

(2) Review and advise the Chairman of the Field Committee with respect to the tentative plans and recommendations of the Field Committee, and receive and consider the final plans and recommendations of the Field Committee and transmit them to the heads of interested Federal departments and agencies and to the President.

(3) Resolve any questions of policy which may arise between a Federal Cochairman and a Federal department or agency in the implementation of regional development programs.

(4) Appoint a Special Assistant and other staff as required to assist him in carrying out these functions.

**SEC. 2. *Establishment of the Council.*** (a) There is hereby established the Federal Advisory Council on Regional Economic Development, hereinafter referred to as "the Council."

(b) The Council shall be composed of the following members: The Secretary of Commerce, who shall be the Chairman of the Council (hereinafter referred to as "the Chairman"), the Secretary of Agriculture, the Secretary of the Army, the Secretary of Health, Education, and Welfare, the Secretary of Housing and Urban Development, the Secretary of the Interior, the Secretary of Labor, the Secretary of Transportation, the Director of the Office of Economic Opportunity, the Administrator of the Small Business Administration, the Federal Cochairman of the Appalachian Regional Commission, such Federal Cochairman as are appointed by the President under authority of Title V of the Public Works and Economic Development Act of 1965, and the Chairman of the Field Committee.

(c) Whenever matters within the purview of the Council may be of interest to heads of Federal departments or agencies not represented on the Council under section 2(b) of this order, the Chairman may consult with the heads of such departments and agencies and may invite them to participate in meetings and deliberations of the Council.

## THE PRESIDENT

(d) The Council shall meet at the call of the Chairman.

SEC. 3. *Functions of the Council.* The Council shall assist the Secretary of Commerce in carrying out the functions set forth in section 1 of this order, and shall, as requested by the Secretary of Commerce—

(a) Review proposed long-range economic development plans prepared by the regional commissions and the Field Committee.

(b) Recommend desirable development objectives and programs for such regions and Alaska.

(c) Review proposed designations of additional economic development regions under Title V of the Public Works and Economic Development Act of 1965.

(d) Review Federal programs relating to regional economic development, develop basic policies and priorities with respect to such programs, and recommend administrative or legislative action needed to stimulate and further regional economic development.

(e) Review proposed department or agency regional economic development plans.

(f) Recommend surveys and studies needed to assist the Secretary of Commerce and the Council in carrying out their functions.

SEC. 4. *Responsibilities of the Participating Federal Agencies.* (a) Each Federal department and agency the head of which is referred to in section 2(b) of this order shall, as may be necessary, furnish assistance to the Council in accordance with the provisions of section 214 of the Act of May 3, 1945 (59 Stat. 134, 31 U.S.C. 691).

(b) The head of each such Federal department or agency shall designate an Assistant Secretary or equivalent level official who shall have primary and continuing responsibility for the participation and cooperation of that department or agency in regional economic development as required by this order.

(c) The head of each such Federal department or agency shall keep the Secretary of Commerce and the Council informed of all proposed regional economic development plans of his department or agency.

(d) The head of each such Federal department or agency shall, consonant with law and within the limits of available funds, cooperate with the Council and with the Secretary of Commerce in carrying out their functions under this order. Such cooperation shall include, as may be appropriate, (1) furnishing relevant available information, (2) making studies and preparing reports, (3) in connection with the development of programs, priorities, and operations of the department or agency, giving full consideration to any plans and recommendations for the economic development of the various regions, including recommendations made by the Council, and (4) advising on the work of the Council as the Chairman may from time to time request.

SEC. 5. *Responsibilities of the Federal Cochairmen and the Chairman of the Field Committee.* The Federal Cochairmen, and the Chairman of the Field Committee as appropriate, shall—

## THE PRESIDENT

(a) Maintain continuing liaison with the Secretary of Commerce with respect to the activities of the regional commissions and the Field Committee.

(b) Adhere to general Federal policies affecting regional economic development that are established by the Secretary of Commerce.

(c) Inform the appropriate Federal departments and agencies of programs and projects to be considered by the commissions, and attempt to obtain a consensus within the Federal Government through consultation with appropriate Federal agency representatives before casting a vote on any such matter.

(d) Represent the participating Federal departments and agencies in connection with the activities of the regional commissions.

(e) Submit to the Secretary of Commerce regional economic development plans and programs of the regional commissions, budgetary recommendations, legislative recommendations, and progress reports, as requested by the Secretary of Commerce, on the activities of the regional commissions.

(f) Submit reports required by section 304 of the Appalachian Regional Development Act of 1965 and by section 510 of the Public Works and Economic Development Act of 1965 to the Secretary of Commerce for review prior to transmittal to the President or the Congress.

**SEC. 6. *Appalachian Program.*** (a) Funds appropriated pursuant to sections 201 and 401 of the Appalachian Regional Development Act of 1965 shall be available to the Federal Cochairman of the Appalachian Regional Commission for the purposes of carrying out that Act.

(b) The Federal Cochairman of the Appalachian Regional Commission is delegated the functions conferred upon the President by sections 214(a), 302(a), and 302(c) of the Appalachian Regional Development Act of 1965, which shall be exercised by him in accordance with the provisions of this order.

**SEC. 7. *Construction.*** Nothing in this order shall be construed as subjecting any function vested by law in, or assigned pursuant to law to, any Federal department or agency, to the authority of the Council or the Secretary of Commerce, or as abrogating or restricting any such function in any manner.

**SEC. 8. *Definition.*** Except as the context may otherwise require, any reference herein to any Act, or to any provision of any Act, shall be deemed to be a reference thereto as amended from time to time.

**SEC. 9. *Prior Executive Orders.*** (a) Executive Order No. 11182, as amended, is hereby further amended as follows:

(1) By changing the heading of the order so as to read as follows: "ESTABLISHING THE FEDERAL FIELD COMMITTEE FOR DEVELOPMENT PLANNING IN ALASKA".

(2) By striking the words "the Housing and Home Finance Administrator" from section 1(b) and by inserting in lieu thereof the words "the Secretary of Housing and Urban Development, the Director of the Office of Economic Opportunity".

(3) By substituting the following for subsection (a) of section 2:

"(a) Subject to the general direction and guidance of the Secretary of Commerce, the Field Committee shall serve as the principal instrumentality for developing coordinated plans for Federal programs which contribute to

## THE PRESIDENT

economic and resources development in Alaska and for recommending appropriate action by the Federal Government to carry out such plans."

(4) By striking from sections 3(e) and 3(f) the words "Review Committee" and by inserting in lieu thereof the words "Secretary of Commerce."

(5) By revoking Part II. The President's Review Committee for Development Planning in Alaska, established by that Part, shall be deemed to be hereby abolished.

(6) By redesignating Part III and section 31 thereof as Part II and section 21, respectively.

(7) By redesignating Part IV and sections 41, 42, and 43 as Part III and sections 31, 32, and 33, respectively, and by striking from the redesignated section 33 the words "and the Review Committee".

(b) The Federal Development Committee for Appalachia, established by Executive Order No. 11209 of March 25, 1965, is hereby abolished and that order is hereby revoked.

/S/ LYNDON B. JOHNSON

THE WHITE HOUSE,

*December 28, 1967.*

[F.R. Doc. 68-111; Filed, Jan. 2, 1968; 10:37 a.m.]

THE PRESIDENT

Title 3 -- The President

EXECUTIVE ORDER 11608

Termination of Federal Field Committee for Development Planning in  
Alaska

By virtue of the authority vested in me as President of the United States, Executive Order No. 11182 of October 2, 1964, as amended, is revoked and the Federal Field Committee for Development Planning in Alaska established thereby is abolished. Executive Order No. 11386 of December 28, 1967, to the extent that it pertains to the Federal Field Committee for Development Planning in Alaska, is revoked. The Secretary of Commerce shall make such arrangements as may be necessary relating to the termination of the Committee.

THE WHITE HOUSE,

July 19, 1971

s/ Richard Nixon

[FR Doc. 71-10414 Filed 7-19-71; 4:20 pm]





## **APPENDIX E**

### **OUTLINE OF PLAN REVIEW PROCESS**

## OUTLINE OF REGIONAL PLAN REVIEW PROCESS

### A. *Introduction*

The review process described in this statement reflects experience to date in conducting the Federal review of regional plans. The procedure is based on several premises:

1. The individual Regional Commission plan has been developed by the Federal Cochairman and the Commission staff in close consultation with member agencies of the Regional Advisory Council.
2. Before the plan is referred to the Department of Commerce, Federal Agencies at the regional level have made a review and provided inputs.
3. The review provided for herein is at the Federal headquarters level and the Federal Cochairman will involve his Commission, as required by Commission policy and practice, in responding to recommendations and suggestions from the agencies and guidance from the Secretary of Commerce.

### B. *Purposes*

The principal purposes to be achieved in the review process are:

1. To provide the Secretary and Federal Cochairman with appraisals by expert sources on problems and solutions in the regional plan;
2. To inform the review elements (agencies of the Department of Commerce and other concerned departments and agencies of the Executive Branch) of regional problems and proposed solutions by the Commission;
3. To permit review elements to identify areas of cooperation with the Regional Commission; and
4. To provide the Secretary and the Federal Cochairman a basis for formulating budget requests.

### C. *Review Elements*

The review elements are:

1. The Secretary of Commerce;
2. The Assistant Secretary for Economic Development;
3. The Special Assistant to the Secretary of Commerce for Regional Economic Coordination (SAREC);
4. Member agencies of the Federal Advisory Council on Regional Economic Development (FACRED); and
5. Department of Commerce (DOC) Intradepartmental Committee.

#### D. Review Schedule (Steps)

1. Draft plan submitted by Federal Cochairman to SAREC. SAREC performs review and provides comments to the Federal Cochairman within 15 days.
2. SAREC transmits draft plan to Secretary for preliminary information purposes.
3. Draft plan distributed by SAREC or by the Federal Cochairman to the Assistant Secretary for Economic Development, the DOC Intradepartmental Committee, and member agencies of FACRED suggesting a 60-day deadline for comment.
4. Federal Cochairman submits to SAREC a report on his disposition of review element comments. SAREC prepares recommendations to the Secretary on the plan and review element comments within 15 days of receipt of Federal Cochairman's report.
5. Secretary of Commerce supplies guidance to the Federal Cochairman.
6. The Regional Commission takes action on the plan and the Federal Cochairman resubmits to Secretary of Commerce.
7. Secretary of Commerce reviews and submits the plan and his recommendations to the White House, notifying the Federal Cochairman and review elements of his actions.

#### E. Focus of Review by Review Elements

1. *SAREC*—The review in SAREC considers the following:
  - (a) Does the plan meet the minimum acceptable planning requirements outlined in Secretary of Commerce memorandum of January 10, 1968 to Director, Bureau of the Budget?
  - (b) Does the plan meet the requirements of Section 307.5 in Title 13 of the Code of Federal Regulations published July 14, 1967?
  - (c) Does the plan respond to written guidance from the Secretary of Commerce beginning with his memorandum of January 28, 1970?
2. *Assistant Secretary for Economic Development*—Review by this office should include:
  - (a) Are the Commission's projections consistent with national trends, EDA information regarding conditions in the region, and public investment payoffs?
  - (b) How do EDA plans for redevelopment areas and districts relate to the regional plan?
  - (c) What are the opportunities for mutually-supportive coordination between EDA activities and the programs proposed in the plan?
3. *DOC Intradepartmental Committee*—Members review the plan from the standpoint of their agency expertise, identifying potential contributions to the plan's goals and objectives. (List of member agencies attached.)
4. *FACRED*—FACRED review should be concerned principally with policy considerations and improvement of coordination. (List of member agencies attached.)
  - (a) Review for conflicts in authority, jurisdiction, and legislation.

- (b) Review for priorities and timing from the standpoint of the agency.
  - (c) Review for relationship to existing policies of the agency.
  - (d) Review to identify and make recommendations on national policy needs revealed by the plan.
5. *Secretary of Commerce*—The Secretary's review concerns are principally two:
- (a) Are there broad policy, authority, or jurisdictional problems that he must personally consider and decide upon or recommend action to the President and the Congress?
  - (b) How does he assess the priority of the claims of the Regional Commission on national resources with reference to other priority claims for these resources?

AUGUST 31, 1970



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